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COMMITTEE ON THE HEALING ARTS

REPORT 1970





COMMITTEE ON THE HEALING ARTS

VOLUME 1



To His Honour The Honourable W. Ross Macdonald, P.C., C.D., Q.C., LL.D. Lieutenant Governor of Ontario.

May it please Your Honour

We, the members of the Committee on the Healing Arts have the honour to submit the accompanying Report.

In accordance with our terms of reference outlined by Order in Council OC-3038/66, we have inquired into and report upon matters relating to the education and regulation relevant to the practice of the healing arts; and, have made recommendations for your information and consideration.

> I. R. Dowie Chairman

Horace Krever

M. C. Urquhart

February 20, 1970, Toronto.





Executive Council Office

OC-3038/66

Copy of an Order in Council approved by His Honour the Lieutenant Governor, dated the 14th day of July, A.D. 1966.

Upon the recommendation of the Honourable the Prime Minister, the Committee of Council advise that pursuant to the provisions of The Public Inquiries Act, R.S.O. 1960, Chapter 323, and effective from May 9, 1966, a commission be issued appointing and designating

Ian R. Dowie

Toronto

Professor Horace Krever

Toronto, and

Professor M. C. Urquhart

Kingston

as the Committee on the Healing Arts, and naming the said Ian R. Dowie as chairman thereof,

- (1) to enquire into and report upon all matters relating to the education and regulation relevant to the practice of the healing arts, and, without limiting the generality of the foregoing, specifically the following:
 - (a) All or any matters relating to entrance requirements, education, instruction and training for the practice of any or all the healing arts in the Province of Ontario;
 - (b) The constitution, powers, duties and regulation of any educational, licensing or disciplinary body corporate or unincorporate having any relation to the healing arts, the exercise of the said powers, duties and regulations and the method of raising and expending revenues attendant thereupon;
 - (c) The situation, legal or otherwise, of all such bodies in regard to each other, the province, and the public;
 - (d) The establishment, creation, control and regulation of any new body required to have relation to the healing arts;
 - (e) Appropriate methods for the supervision, control and regulation and discipline of all those practising or professing to practise any of the healing arts;

- (f) The existing or possible methods of examining, licensing or otherwise authorizing the carrying on by individuals of the practice of any methods having any relation to the healing arts and the standards prescribed and followed or proper to be established and followed;
- (g) The merit of the services and practice of all the disciplines associated with the healing arts;
- (h) The present position and merit of the services, duties and responsibilities of those operating or engaged in providing services through independent biological or diagnostic laboratories;
- (i) Those who offer to the public the claim of diagnosis or therapy through the use of mechanical, electrical, or other types of machines and the relative value of such machines in diagnosis and treatment;
- (j) The existing laws of Ontario in relation to any of the foregoing and their practical operation; and
- (k) Any matter arising out of the foregoing which it is necessary to investigate with a view to the above enquiries; and
- (2) after due study and consideration to make to the Prime Minister and Executive Council of Ontario such recommendations, in accordance with the objectives above set out, as the Committee may deem desirable in the public interest.

The Committee further advise that the Committee shall also be empowered

- (i) to consult any person, organization or association and to receive their views and proposals regarding any of the matters specified, and
- (ii) to receive deputations, briefs and representations in respect of any of the matters specified.

And the Committee further advise that pursuant to the said Act the said commissioners shall have the power of summoning any person and requiring him to give evidence on oath and to produce such documents and things as the commissioners deem requisite for the full investigation of the matters into which they are appointed to examine;

And the Committee further advise that all Government departments, boards, agencies and committees shall assist, to the fullest extent, the said Committee on the Healing Arts which, in order to carry out its duties and functions, shall have the power and authority to engage such counsel, staff and technical advisers as it deems proper.

Certified,

J. J. Young Clerk, Executive Council

PREFACE

The Committee on the Healing Arts was established by an Order in Council dated July 14, 1966, under the provisions of the Public Inquiries Act and named to the Committee were Ian R. Dowie, Toronto, Chairman; Horace Krever, Toronto (now of London, Ontario); and M. C. Urquhart, Kingston. The Terms of Reference of the Committee were set out in the Order in Council and they are reproduced on page vii.

In announcing the appointment of the Committee in the Legislature on June 29th, 1966, the Prime Minister described the Terms of Reference as "far reaching in their scope" saying "the legislation governing the various healing arts associations has not been under searching scrutiny by any outside body for a long time and in some cases not at all. Because of the expanding numbers of these associations and their diverse interests coupled with the greater involvement of government in health matters, it is deemed essential to establish this Committee at this time to conduct a searching and objective study".

So broad was the scope that we found it difficult to limit the area of our studies and to decide in what depth they should be made. In this we were guided by a consideration of the limitations which must obviously apply to the judgment in highly technical matters of a committee of laymen. Accordingly in our search we did not endeavour to probe into matters the evaluation of which we felt would require a technical competence which we did not possess. We assumed that technical evaluations had not been intended and this governed our thinking in the design of our research studies and in the selection of personnel to undertake them.

In the collection of the basic data regarding the individual disciplines questionnaires were used and the names of the organizations and institutions which completed these questionnaires are listed in Appendix V. At the same time, most of these organizations and some of the institutions were invited to make further submissions to us in the form of briefs or at hearings and, in advertisements, the same invitation was extended to the general public. Briefs were received from 101 organizations and individuals listed in Appendix III, and 136 hearings were held on fifty-eight days of sitting. Verbatim transcripts running to 9,018 pages were kept of all hearings and interested parties could obtain copies of these from the reporting service. Almost all the hearings were held in Toronto where the headquarters of most of the organizations are located, but hearings were held also

in Ottawa where a number of organizations and individuals could take advantage of them and in Sault Ste. Marie where the members of the Committee wished to inspect an institution.

In addition to the hearings the Committee as a whole, or individual members of the Committee, held many meetings with individuals and representatives of organizations from whom we felt we could obtain advice or useful information. A list of such meetings is to be found in Appendix IV.

We were interested to find that there existed a tremendous volume of relatively current literature, and to learn that in one or two other countries, particularly the United States and the United Kingdom, various commissions or committees were at work on studies similar to ours in subject and scope. The conclusion of some of these studies and the publication of their reports during the period that we have been at work have been very helpful to us, and the great professional and public interest in health care services evidenced by these commissions has during the same period produced a wealth of information and opinion in the various professional publications and in many new books.

Unfortunately, not too many of these dealt with Canadian problems in particular, but we soon discovered that the problems in other countries, again particularly the United States and the United Kingdom, resembled the problems which we were directed to study sufficiently closely to make discussion of them very helpful to us.

Outstanding in the Canadian literature in its usefulness to us was, of course, the *Report of the Royal Commission on Health Services*, the "Hall Commission", and the work done by that Commission and its research staff saved this Committee an enormous amount of work and great expense.

To assist in its deliberations, the Committee commissioned a number of research studies on particular disciplines or institutions. Of these there were some twelve in number designed to supplement the information which we expected to receive from questionnaires, briefs, hearings and the literature. While not all of the reports of these research projects have been published, all made significant contributions to the Committee's deliberations and to the preparation of this Report. A list of those projects which have been published as appended volumes may be found in Appendix II.

Another publication that was of great interest and some assistance to us was the report published in 1918 of a Royal Commission established in 1915 to enquire into "Medical Education in Ontario". In the introduction to his report the Commissioner, the Honourable Mr. Justice Hodgins, set out the Terms of Reference which were not dissimilar to those established for the present Committee and which stated that the term "medicine" was to embrace all "sciences, plans and methods or systems with or without the use of drugs or appliances and whether now deemed to be included therein or not, or diagnosed, prescribing for, preventing, alleviating, treating or curing human disorders, illnesses, diseases, ailments, pains, wounds, suffering, injury or deformity affecting the human body or any part thereof, or its physical condition or believed or imagined so to do,

including midwifery, and any treatment prescribed or advised whether administered to, operated upon, or followed by the patient himself, intended or professing immediately or ultimately to benefit the patient". Thus the Hodgins Commission was in fact a report on what is now referred to as the healing arts.

Conditions and circumstances have changed so much since 1918 that we have refrained in this Report from any discussion of how our findings or recommendations compare with those of Mr. Justice Hodgins; such comparisons would be of academic interest only, and much space and time would be consumed in describing the changes that have taken place in the half century intervening between the two Reports. To the best of our knowledge, no other study of education and regulation in the healing arts in Ontario was undertaken during that period, although one was planned in 1948 and a Commissioner appointed to undertake it. The Commissioner died before the work was commenced and no new appointment was made.

We express our appreciation to the people named in Appendix I who have served on our staff during the period that the Committee has been at work. We express our appreciation especially to Mary Collins, our Executive Secretary, and to Professor J. T. McLeod, our Research and Editorial Director, for their devoted and energetic contributions throughout the work of the Committee. An acknowledgement of the loyal contributions of Catriona Anderson, Sally Howell and Ruth Taylor of our secretarial staff must also be recorded. Our Counsel, Julian Porter, rendered an invaluable service to the Committee as well. We are also indebted to the many organizations and individuals who, by their appearance before us or in other consultations, or their cooperation in the completing of questionnaires, made it possible for us to collect the very considerable volume of information which has gone into the preparation of this Report.



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Chapter 1 Introduction

Our subject is the health professions and healing groups in Ontario, and particularly the educational and regulatory arrangements made in relation to the fifty or more disciplines which comprise "the healing arts".

Although we examined the various disciplines individually and in detail, we have also attempted to formulate recommendations in terms of the health care needs of the citizens of this province, the need for integrated patterns of health care, and the most appropriate system of combining scarce skills and facilities to provide optimum levels of health care. We have, of course, attempted to determine what would be "best" for physicians, dentists, nurses, and other practitioners; however, our overriding concern has been to point the way towards what may be "best" for patients and for the public interest. In short, we have regarded the health system and the various healing disciplines as part of a sophisticated industry, not as separate fragments.

Similarly, in stressing educational and regulatory arrangements, we have looked at these two matters not in isolation from each other, but as integral parts of the development and practice of the healing disciplines involved in the health care of Ontario's residents. It is apparent that both education and regulation are important factors in shaping the quality of services, the organizational patterns through which services are delivered, and the relations between the health disciplines and public authorities. In large measure the educational and regulatory arrangements determine the merits of the services ultimately provided to the public.

Our subject comprises an important area of public policy which has been relatively neglected in Ontario in recent decades. It is more than fifty years since the presentation, in 1918, of the Honourable Mr. Justice Hodgins' Report on Medical Education in Ontario. Since that time, the problems with which we deal have not been the subject of any major formal public inquiry in this province.

However, the intervening decades have witnessed innumerable and sweeping changes in the health care system both in Ontario and throughout the western world. During these decades there has been a great expansion in the total quantity of resources devoted by the community to health care, in the numbers of health personnel, and in the numbers of types of categories of such personnel. New disciplines and new categories of non-medical health personnel have emerged in increasing numbers. There has been a corresponding increase in the numbers of medical specialists and medical specialities. At the same time, dramatic advances

2 Introduction

have occurred in medical knowledge and technology, including the "drug revolution" and the development of "miracle" drugs, and more sophisticated chemotherapy; advances in the understanding and treatment of mental illness; the development of spectacular new techniques in surgery; great improvements in diagnostic and investigational services, utilizing new knowledge in clinical pathology and diagnostic radiology; reduction in infant and maternal mortality rates through developments in paediatrics and obstetrics; and the growth of geriatrics as a branch of general medicine. These developments, and others, undoubtedly have raised the general level of health for the bulk of the population, but they have also created new problems, such as those related to the survival of and care for an increasing number of physically and mentally handicapped children, and the rehabilitation and welfare of the elderly.

Changes in health technology have required substantial changes in the manner in which services are provided. The most important innovation in the "delivery system" during recent decades is the increasingly widespread use of hospital facilities as principal centres of patient care; this change has been associated with increased use of emergency and outpatient hospital facilities, and more extensive use of non-medical hospital personnel. Both inside and outside the hospital, new patterns of health care are emerging and will continue to evolve as more effective means of organizing and coordinating health care are developed.

These changes have by no means occurred in a social vacuum. During the past five decades there have been important changes in the population, as well as in the attitudes of the community towards health care. The size of the population has increased rapidly; our citizens now enjoy a higher standard of living and higher levels of educational attainment than ever before; economic and social factors have accelerated the trend towards urbanization, and urbanization in turn has created new health care needs associated with such problems as industrial and automobile accidents.

The attitudes of the community towards health care also have been transformed in recent years. The technological advances in health sciences, together with the great expansion in personal as well as public health care, have accustomed patients to higher levels of service than ever before. Now patients are not only more affluent and better educated, but they are also more sophisticated; their expectations and demands for health care have risen and continue to rise.

In response to these new circumstances the health care system has been adapted in many ways. However, changes in the general health care system, including public arrangements for the education and regulation of practitioners, have tended to be ad hoc and piecemeal; this is particularly true of adaptations in the regulatory and licensing apparatus of the senior health professions, where very little fundamental change has taken place during the past fifty years. Therefore it should occasion no great surprise that this Committee has found it necessary to reassess

the entire health care system in the light of contemporary needs, and has recommended substantial alterations in the relations among the various health disciplines and in the relations between the government and the health care sector.

The recent extension of publicly financed health insurance plans has both reflected and quickened the interest of the community in problems of health care, and it has further highlighted the need for adaptation and reform of certain aspects of the health care system. Presumably it was no accident that this Committee was created to conduct its inquiries so shortly after the publication of the *Report of the Royal Commission on Health Services* (the Hall Report). While we pursued many lines of inquiry which were not the subject of detailed examination or recommendations by the Hall Commission, and while we comment upon certain problems which it also discussed, our Report is intended to be read as complementary to the Hall Report.

Scope of the Study

In view of the vastness and complexity of our subject, it may be as important to state what we did not attempt as what we did attempt to do. We did not attempt to replicate for Ontario what the Royal Commission on Health Services did for Canada. The Hall Commission performed a remarkable service. It reported upon existing facilities and the future needs for health services in Canada, and the resources required to provide such services; and it recommended measures designed to assure that the best possible health care be available to all Canadians. Thus the Hall Report considered the aggregate level of health services which it believed should be available within the Canadian economy, and the minimum level of health services that should be accessible to every individual. Mr. Justice Hall and his colleagues studied manpower requirements, hospital requirements, and the most appropriate means of financing health services — that is to say, the insurance problem. Their leading recommendations were focused on medicare and the feasibility, organization and financing of public health insurance.

The Committee on the Healing Arts not only had different terms of reference, but also thought it undesirable to duplicate or merely update for Ontario the studies and the recommendations produced by the Royal Commission on Health Services. Therefore, we did not undertake special studies or quantified projections of manpower requirements. We did not focus our attention on manpower scarcities or "shortages", except in those few cases of the disciplines — including medicine, dentistry and pharmacy — where manpower shortages are most apparent; in such cases we do make specific recommendations for expanding manpower and augmenting educational facilities, even though the question of shortages has not been our major concern. Nor did we undertake extensive studies of the geographical distribution of manpower and health services within Ontario, or any special study of public health facilities, since our terms of reference did not charge us with these responsibilities.

4 Introduction

We did not commission a special study of hospitals, but several of our research studies, including those pertaining to medical organization, nursing, paramedical personnel, and mental health, as well as many of our hearings, provided substantial information on this subject. We recognize the centrality of the hospital to the health system and the growing portion of health expenditures devoted to hospitals. We have attempted to examine some of the complicated hospital mechanisms relating directly to education and regulation, to analyze the roles of various healing groups in the hospital setting, and to make certain limited recommendations relating to hospitals. But we make no claims to particular expertise in this unusually complex institutional area, and on the whole, we limited our inquiry to matters directly affecting the practice of the various disciplines found within the hospital.

Similarly, we have not made special studies of the financial administration of present health services rendered in Ontario by government, or future cost projections of such services although, as our terms of reference required, we have commented upon the financing of various regulatory agencies. Furthermore, this Committee has not attempted to make projections of what specific proportions of total provincial resources "ought" to be devoted in the future to health rather than to alternative public uses.

It is apparent that the community places a high priority, as we do, on assuring that the quantity and quality of health services available to our citizens is adequate to meet social needs. The needs and problems of the health care system undoubtedly will remain subjects of controversy during the next decade and will receive increasing public attention and scrutiny. We are persuaded that substantial and probably increasing quantities of public resources will have to be devoted to the health sector in the future. The financial requirements for health facilities, education and research are almost certain to grow and to make heavy demands on the public treasury. It is important that these needs be met insofar as may be feasible. We recognize, however, that the determination of the total quantity of resources devoted to this sector of the economy ultimately must be a political decision based upon social choices made by the community through its political representatives. Our findings and proposals are intended to spark public discussion and suggest specific directions and general guidelines for public action, but not to be a substitute for continuous scrutiny of the health field by the community or for continuous research.

In this connection it is necessary for the reader to bear in mind that no member of this Committee or its staff is a professional health practitioner. We have attempted to reflect a broad perception of the public interest rather than any narrow or specialized interest. As laymen we are conscious of our limited ability to deal with some of the technicalities of particular healing practices or to make absolute pronouncements upon the merits of certain practices, let alone the length or content of various educational curricula in the healing disciplines. Where

we have felt that we could make informed judgments and suggestions, we have not hesitated to do so; where we have found that our technical information was inadequate, caution and circumspection have guided our deliberations.

While we are aware of the important contributions already made by the Royal Commission on Health Services, we have kept in mind what the Hall Report and other studies have not done. Because of its preoccupation with aggregate quantitative data and with the problem of insurance, the Hall Commission understandably devoted much less attention to matters of education, regulation and the organization of health care services than to subjects of its prime interest. It seems fair to suggest that the Hall Commission was concerned largely with assessing the total supply of health services in relation to anticipated increases in demand through the spread of public health insurance programs. We have assumed, and taken as "given", the existence of some form of universal public health insurance.

But the Hall Commission also tended to take as "given", or to devote less attention to, certain matters which have occupied our attention. The Hall Commission tended to make certain assumptions concerning such matters as the unaltered existence of professional self-government and fee-for-service patterns of remuneration. It did not place particular emphasis upon the balance or imbalance between various levels of specialized health practitioners and the allocation or reallocation of roles between various types of healing personnel. The Hall Commission did not stress the problems of efficiency within the health care system — that is, efficiency in terms of obtaining the optimal social utility from given, limited resources available for health care, or maximum outputs from given inputs. Nor did the Hall Report attempt to pursue in any great detail questions relating to obtaining the "best" or optimal allocation and integration of the various health resources after medicare, and in the absence of free markets or a free price system which might serve to ration and coordinate services in the health industry.

These are the matters with which the Committee on the Healing Arts is principally concerned. These are the matters which in our view present the most serious challenges to the health system in the 1970's. Together with matters which are explicitly related to educational and regulatory arrangements, this Committee has been concerned mainly with the *structure* of the health industry, the *efficiency* and *coordination* of health services to assure maximum health care outputs from the resources inputs, and the steps which should be taken to ensure a sound and integrated health industry.

The size and complexity of our subject have made it necessary for us to place limitations on the interpretation of our terms of reference. Repeatedly we have been struck by the lack of firm statistical data relating to many basic aspects of health care. Frequently we discovered that professional groups appearing before us made statements and allegations which could not be substantiated by factual evidence. Moreover, there are few, if any, scientific indices available for precise

measurement of the productivity or efficiency of the health system. Still less are there agreed means of measuring total social costs and social benefits of particular programs, or means of controlling, let alone reducing, costs in the health industry. Professional practitioners and technical "experts" usually fail to agree on the most appropriate means of studying, not to say solving, the problems with which we have grappled. Necessarily, a certain rough and ready commonsense and a due regard for the present art of the possible have had to inform and limit the scope of our inquiry.

Special Characteristics of Health Services

In contrast to other aspects of society, there are many ways in which the problems of the health care system are unusual, if not unique. Some of these considerations may be readily apparent; but since they have shaped our deliberations and to some extent influenced our general approach to the subject, they must be made specific.

At some points in their lives all individuals will require health care, but health services may differ from other kinds of services in the random way in which acute illness strikes individuals and families. Health care is essential to all individuals and to the entire community. The physical, mental and financial hazards of illness are recognized as being so burdensome to individuals afflicted with them that society has demonstrated that what it wants is insurance. The widespread public insistence upon the insurance principle has been demonstrated first through the creation of private and, later, public hospital insurance schemes; then through private health insurance plans; and more recently through the establishment of public health insurance programs. It is impressive how rapidly and widely health insurance has been established in response to consumer demand.

It is also essential to realize that in dealing with such a specialized service as health care, it is extremely difficult for individual patients or consumers to make knowledgeable and informed judgments on the quality of the care received. Patients cannot normally pre-test the types of care available; patients cannot judge adequately the quality of services provided or be aware of all the alternative services available and their relative merits. In situations of acute illness or emergency, the patient will be glad to accept the service most readily obtainable, and in some cases only a limited range of services may be available. Thus it is difficult at best for the consumer to make rational decisions, and "consumer sovereignty", in the accustomed sense of the term, does not prevail in the health field.

Therefore, the problem of how to assure high standards of service becomes particularly significant. Quality control must be ensured and the vulnerable consumer protected. For this reason the state must take steps to guarantee to its citizens minimum standards of quality in health services.

Traditionally the state has delegated the function of guaranteeing quality to professional and other bodies. Government delegates regulatory and disciplinary functions concerning practitioners to colleges, such as the College of Physicians and Surgeons of Ontario. Licensing bodies, at the same time, enjoy a very large measure of autonomy in the creation and maintenance of standards for those permitted to practise. The independent self-regulatory and licensing arrangements, delegated by the public to the professions, give the professions very considerable power as well as responsibility.

Because of the obligations conferred upon them by the state, licensing bodies also have great power to protect the consumer through control of the quality of service rendered by practitioners. Colleges maintain standards of quality of practice through regulatory and disciplinary procedures, and only those practitioners who meet minimum standards are licensed to practise; failure to meet the set standards of practice can result in the withdrawal of the licence.

It is apparent that the power to control professional standards is a major factor in the creation of professional pride. Practitioners attach great importance to, and obtain great satisfaction from, their ability to meet the high and demanding standards of their professions, and they realize that any departures from those standards will involve rigorous disciplinary procedures by their peers. Thus professional independence and professional pride are extremely significant, not only to practitioners themselves, but also to the public in guaranteeing high standards of quality of care received.

This Committee is fully cognizant of the importance of professional integrity both to practitioners and to the public, but we remember also that the delegation of responsibilities by the state to the professional licensing bodies confers on those bodies a monopolistic power. Like other monopolistic concentrations in a society, this power may not always be exercised in the public interest. Such delegations of power by the state are intended, not just primarily but exclusively, to be used in a manner which will promote and maintain high qualitative standards of practice; the sole justification for such delegation of power is the protection of the public. Even when used with great care and discretion, monopolistic powers are always dangerous and require constant public scrutiny.

There are at least two further characteristics of the health system which must be mentioned: one is the absence of a free economic market to coordinate the system, and the other is the existence of significant "information gaps".

Many factors influence the economic allocation of resources in the health field and determine the prices and quantities of services available. In many industries the allocation of resources and the price structure are determined largely by the interplay of the forces of supply and demand, and thus a relatively free market will determine more or less "automatically" the availability of goods or services in those industries. Health, on the other hand, has been a sector of the twentieth century economy in which the market or price system has been only a limited

mechanism of coordination. Limitations of consumer knowledge, educational and licensing limitations on entry into the health disciplines, the setting or administering of prices for many services by professional bodies, and the substantial degree of government participation and regulation in the provision of health facilities and services have all combined to create a system in which the market does not provide any normal or "natural" means of allocating and coordinating health services. The nature of the health system has not recently, in any event, been shaped primarily by market forces.

Moreover, individual consumers are by no means the only parts of society lacking in sufficient information upon which to make rational judgments concerning health matters. The significant gap in knowledge of technical matters extends not only to individual patients, but also to public authorities; in essence, this is why government traditionally has delegated regulatory and disciplinary functions to professional colleges. Often there is also an information gap in relation to the technology of health care. We have mentioned the striking increases in human knowledge concerning health procedures which have occurred during the past fifty years, but in certain areas there has been a lag in the application of new knowledge. In health, as in many other fields, there may be institutional and traditional restraints on the application of new technology, and considerable periods of time are often permitted to elapse between the discovery of a new technique and its widespread application.

Awareness of these characteristics of the health system has influenced our deliberations, and many of these characteristics are sufficiently important that we will allude to them in connection with the discussion of various recommendations scattered throughout our Report.

Ends and Means

We have assumed that the overriding goal or objective of the health system should be the health and well-being of the whole community and the welfare of its members. That statement may be less platitudinous than it first appears. We have found that the interests of patients and the public do not always take clear precedence over the somewhat narrower interests of the professions, practitioners and administrators. We have found too that the health system sometimes tends to be oriented somewhat negatively towards illness and curative procedures, rather than positively towards states of health and an emphasis on preventive measures. The object of the system should be positive and consumer oriented: to promote and maintain physical and mental health in the widest sense throughout the community. A comprehensive care system must include measures for prevention, diagnosis, cure, rehabilitation, and long-term care, as well as appropriate educational arrangements for both practitioners and the general public in matters of health.

This Committee endorses the "Health Charter For Canadians" enunciated by the Royal Commission on Health Services. We agree that health is a "right" and that health services must be available and accessible to all citizens regardless of their geographic location, income or other social circumstances.

However, to affirm that health is a "right" is excessively simplistic. No rights are absolute, and no rights are static. Rights may be in conflict with other rights, and all rights are based upon a broad social consensus; that consensus, in turn, is constantly changing. The attitudes of society towards what is necessary, desirable or "adequate" shifts from year to year and from decade to decade as changes occur in incomes, technology, tastes and expectations, and social values. Our desire is to see that public needs are met fully in the long run through action based upon a scale of socially determined priorities, and that the most urgent public requirements for health services in the short run are met through efficiency in the utilization of available resources. Hence, our primary concern is with the organization and structure of the health industry required to meet social needs.

Although our statement of the general end or goal of the health system will occasion little or no controversy, it is much more difficult to perceive and obtain agreement upon the best means or methods of achieving that goal. Our search for such means has caused us to evolve certain general principles which we believe must characterize a sound and socially acceptable health system. In the absence of precise guidelines or absolute standards for the measurement of the "adequacy" of the health care system, we have developed our own bench marks and rule-ofthumb criteria according to which we have made our assessments. These criteria, which we acknowledge to be imperfect and approximate, include the following concepts: maintenance of quality of services, accessibility of health care, coordination of services, flexibility, economy, and complementarity of services; and a maximum degree of freedom of choice consistent with public safety.

The point must be emphasized that protection of patients and the public requires maintenance of measures for quality control. The existence of significant information gaps between the public and the professions, makes it necessary for government to ensure that there are satisfactory means of guaranteeing the quality of service which the public receives. We believe that licensing or certification procedures for health practitioners must be continued. But we believe also that the public must have a more direct voice in the formulation of general regulatory policy, and to that end we will recommend certain modifications in regulatory and licensing procedures. We recognize that in assuring the public of the competence of health practitioners, as ultimately government authorities must, there will necessarily be trade-offs of quantity versus quality. It is not appropriate to think only in terms of what is "best" or the highest quality of services technically possible; to provide the "best" for every citizen at all times in all places is beyond the capability of the community's limited resources. This consideration makes it all the more apparent that the public must play a more direct role in the determination of what may be considered adequate standards or quality of services.

Considerations of quality are primary, but the general goal of health cannot be achieved unless attention is devoted also to considerations of quantity and

accessibility of health services. Through the recent and rapid growth of expenditure on health and the extension of public health insurance schemes, the community has indicated its will concerning the provision of adequate levels of health services. The public must be assured that there will be relatively easy access to health services. If all citizens are to have access to health care, there must be assurance that an adequate manpower supply of health practitioners will be available to meet public needs. While quantification of manpower supply needs was more a concern of the Hall Report than of this Committee, we are sensitive to the needs for manpower planning and we recommend procedures for continuous review of policy-making and health resources planning.

In assessing the health care requirements of the community and the various healing professions and disciplines which have come under our review, one of the matters which has impressed us is the dispersion and compartmentalization of services. Coordination and integration of services, we believe, is one of the most urgent requirements of the existing system. We have been struck by the need to facilitate increased cooperation between various healing professions and disciplines, to diminish misunderstanding and conflicts between various healing groups, and to prevent domination of health administration and health care by any single group or profession.

In the absence of automatic mechanisms to bring about coordination of services, we believe that increased government participation and planning are essential. Some degree of government regulation of the health industry has always been present in Ontario. In recent years it has become apparent that both government and the people have exhibited changing attitudes towards what level of public intervention may be necessary and appropriate in the health field. Increasingly the public takes for granted some degree of government control over essential services and demands that government play an important role in determining the levels of service available where basic community needs are involved. This Committee has concluded that increased government participation in determining levels of service and in coordinating the health system is both necessary and desirable. Our approach to the problems of health is predicated upon the necessity of leadership and planning by government to achieve integrated and comprehensive community health care.

The Committee does not base its advocacy of increased government planning on any dogmatic or ideological considerations. Our reasoning is pragmatic and based upon real and present needs. In our judgment, planning should be viewed neither as an intimidating device for state regimentation nor as a quick, simple panacea for the solution of complex problems; it need not involve regimentation. The process is always difficult, but we regard planning as a legitimate and necessary tool of modern industry and modern government. We regard planning merely as the application of human rationality and the techniques of social science to the solution of community problems. The essence of planning in our view is the identification of problems, the systematic collection of data through research on

which to base reasoning concerning those problems, the careful consideration of a range of alternative solutions, and rational community choice of the most appropriate solution. The implementation of the solution that follows from careful planning must be carried out by responsible public agencies acting in close cooperation both with the private interests concerned and with representatives of the general public.

We emphasize that our advocacy of planning implies no desire to create rigid mechanisms for political control of the health professions and disciplines or any monolithic bureaucratic structure. Healing practitioners must be assured that the essentials of professional integrity are maintained and that bureaucratic domination will be avoided. With this is mind, our recommendations concerning administration and planning have been formulated to incorporate safeguards against excessive control of practitioners by any private or public agency, means of assuring representation of the interests of the healing professions and disciplines, and measures to decentralize public arrangements for health administration. In general our purpose is to propose methods of overcoming the existing lack of coordination among the various professions and services, and to regard all aspects of the health industry — including educational, regulatory, and governmental bodies — as parts of an integrated and coordinated system designed to meet the needs of the community. It is our desire to keep the interests of patients and the public paramount, while at the same time recognizing the importance of participation in decision-making by professional practitioners whose traditions and independence are important aspects of the overall system. A due regard for the benefits of institutional pluralism have guided our deliberations.

If the goal of health is to be achieved, the system must include important elements of *flexibility*. Any sound administrative arrangements for health care must encourage a high degree of innovative pluralism and enable all parts of the system to be responsive to the rapid changes in modern technology and the shifting needs and demands of the public. Accelerated rates of change in the health field underline the necessity for flexibility and experimentation in modes of providing health care so that the community may reap the full benefits of an adaptable and responsive structure of health services. Society is entitled to the rapid application of new discoveries and techniques, insofar as may be consistent with safety, and the minimization of time lags in the application of new scientific knowledge. We attach great significance to the encouragement of innovation through experiments, research, comparative studies, and the provision by government of incentives, including financial incentives, to facilitate change.

In a world of almost infinite human desires and only limited resources available to meet alternative needs, economy and efficiency are essential to the health care system. If social needs are to be met, scarce resources must be employed in a manner which will ensure the greatest effective utilization of existing skills and facilities. The growing pressures of public demands for health services make it imperative that there be no major economic wastage or underutilization of skills.

Thus the Committee has designed many of its recommendations to attempt to ensure that excessive quantities of resources are not devoted to marginal uses and that optimal utilization be made of existing facilities and skills, particularly in relation to the skills of various paramedical or allied health personnel.

Optimal utilization of such personnel cannot be achieved, however, unless there emerges a coordinated health care system based upon a recognition of the complementarity of the various disciplines. Having noted the existence of numerous interdisciplinary conflicts and tensions, we have attempted to formulate recommendations which we believe may clarify the roles of various healing groups and promote not only optimal utilization of skills, but also increased cooperation and complementarity between the component groups of the healing arts.

No discussion of the criteria or general principles of a sound health care system would be complete without emphasis on the concept of *freedom*. In the course of our deliberations and in the formulation of our recommendations, we have always been mindful that members of a democratic society must take great pains to safeguard individual liberty and maximize human freedom within the necessary restraints of public safety. We believe that patients, practitioners and society at large all place a high value on freedom of choice. We stress our desire that, insofar as may be consistent with public safety, patients must be free to resort to the practitioner of their choice, and that practitioners must also be free to accept only those patients for whom they are prepared to assume voluntary responsibility. However, even in a democratic society, no rights are absolute and individual liberty must sometimes be qualified in the public interest.

In assessing the merits of the practice of some of the groups holding themselves out as providers of health care, one of the most difficult problems is that of maintaining a proper balance between the right of an individual freely to resort to a "healer" in whom he may have confidence, and the interest of society in preventing harm to its members by their resort to practitioners whose discipline objectively has little or no merit.

As we have pointed out in Chapter 23, the problem is not difficult in the case of the treatment of those members of society who, by reason of immaturity or other legal disability such as mental incompetence, are unable rationally to perceive their own best interests. By definition these members of society are incompetent to exercise the judgment that is implicit in the concept of free choice, and in our view the state is completely justified in prefering measures that ensure safety over measures that relate to freedom of choice. We do not think that it is an unacceptable infringement of parents' freedom to require that they resort to modes of therapy considered conventional or orthodox by society for those persons under legal disability for whom they are responsible. Generally we believe that in a free society the preference must be given to freedom of choice as opposed to a paternalistic concern by the state for the safety and well-being of its subjects. But the formulation of this principle is easier to express than to apply.

Inherent in the practice of any healing discipline is a risk of injury to the patient, even at the hands of the most sophisticated practitioner when acting competently. We have no doubt that the risks of harm inherent in the practice of some disciplines are greater than those inherent in others, and the degree of variation might well depend on the extent to which the discipline rests on a sound theoretical basis. The fact that a particular discipline may not have such a basis, and that accordingly it contains within it a greater potential for harm is not, however, in our view, a sufficient justification for proscribing it. For example, some of the disciplines we have studied rest upon theoretical bases which we are satisfied are invalid, and moreover are disciplines in respect of which there is some evidence of resulting harm and perhaps even death. Yet we have not recommended their proscription because of our preference for the value of freedom of choice as opposed to safety as far as legally competent adults are concerned. On the other hand, we believe that there may be a point at which the extent of harm done, or the number of persons harmed by the practice of a particular discipline, reaches proportions which justify or necessitate the intercession of the state to abridge the freedom of choice theretofore preferred. Admittedly, when such a point is reached must remain a matter of judgment, a judgment which must be exercised objectively and, we think, by a public authority. Thus we have recommended in Chapter 23 that, though there is now insufficient evidence of the kind of harm we have referred to which would justify proscription of a particular practice, our apprehension about the degree of potential for harm is such that a constant surveillance over the practice is required.

Design of the Report

Volume 1 of our Report provides the setting and the framework for the analysis of Ontario's health care system. For the reader's convenience our recommendations are summarized in Chapter 2. Chapter 3 provides an historical exposition of the development of legislation pertaining to health care in Ontario, and Chapter 4 offers an overview of the institutional structure of health services in this province. The economic structure of the health sector is analyzed in Chapter 5, and is followed by an examination of some of the dimensions of the resources presently available in this sector.

In Volume 2 we subject the various individual healing disciplines to a detailed examination with particular emphasis on problems pertaining to educational and regulatory arrangements for each group. The first section of the volume, Chapter 7, describes the important role of the hospital in the health care system and outlines this major institutional setting in which many of the healing groups perform many of their functions and services. Chapters 8 through 23 provide information on all of the major categories of health practitioners to be found in Ontario. We have considered the senior health professions and some of the most numerically significant groups before turning our attention to some of the more

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recently developed disciplines; but no particular significance should be attached to the ordering of our chapters and no invidious comparisons should be drawn between the various groups by reason of our order of their consideration.

In Volume 3 we turn our attention to the totality of the health care system. Here we attempt to analyze the problems which we consider to be most significant in the determination of the future of health care in Ontario. Chapter 24 indicates the need for new institutional patterns and proposes a new institutional framework for administration and planning. In this connection it should be noted that we propose new administrative arrangements for both hospital insurance and general health insurance; therefore, whenever we mention functions of the Ontario Hospital Services Commission (OHSC) we mean the new combined Ontario Health Services Insurance Commission proposed in this chapter. Chapters 25 and 26 are devoted to questions of the regulation of practice and the education of practitioners. The role of hospitals in the provision of health care is reassessed in Chapter 27. New patterns of mental health care are considered in Chapter 28.

An examination of some aspects of group practice is contained in Chapter 29. The reader should note that in our discussion of group practice in this chapter we do not confine ourselves to any form of combinations or groupings of health practitioners, but employ the term "group" to apply to a broad range of patterns of organization. The reader should also note that our use of the term "paramedical personnel" instead of "auxiliaries" or "allied health personnel" does not necessarily reflect any biases or philosophical preconceptions concerning the role and status of such disciplines. We have chosen the term "paramedical personnel" only because it is the most familiar and widely used term in circulation today.

Finally, Chapter 30 is devoted to an examination of the problems of general practice in medicine and proposals for the development of a new general or family physician.

Not all of our recommendations are unanimous, and where a member of the Committee has differed with the majority view, a footnote refers the reader to a minority opinion.

Chapter 2 Recommendations

Physicians

- 1 That the sixth medical school planned for Ontario should be established immediately in order to assist in providing the increased numbers of physicians required by the province.
- 2 That there be an increased emphasis on medical and other health manpower planning, and that studies of manpower requirements should be conducted continuously by both the Ontario Council of Health and the Research and Planning Branch of the Department of Health.
- 3 That the Minister of Health of Ontario request that the Council of Deans of Ontario Faculties of Medicine ensure that information concerning applications for entrance to medical schools in Ontario be properly analyzed. Necessary steps should include elimination of duplication in count of applications; proper categorization of an applicant as being refused 1) on strictly academic grounds; 2) because the medical school's quota is filled; 3) on account of geographic or other considerations; 4) on account of sex. The Committee recommends the establishment of a centralized application procedure for medicine such as that now used for admission to most Arts and Science faculties in Ontario.
- That the Province of Ontario provide financial assistance to medical students to enable them to work in hospitals or other health service institutions during the summer.
- 5 That the Medical Act be amended to remove the power of the College of Physicians and Surgeons of Ontario to specify either minimum admission requirements or minimum curriculum for medical education.
- That medical schools in Ontario should continue to be accredited by the Joint Accreditation Council of the Association of American Medical Colleges, and the Council on Medical Education and Hospitals of the American Medical Association, augmented, however, by representatives from the Association of Canadian Medical Colleges.
- 7 That greater emphasis upon social and preventive medicine and social sciences should be included in the undergraduate medical curriculum.
- 8 That the accreditation of hospitals for internship programs should be carried out on a national basis by the Association of Canadian Medical Colleges, but that if this is not possible, accreditation should be under the auspices of the

- Council of Deans of Ontario Faculties of Medicine. At the same time, the Committee recommends that medical schools should continue to control the internship experience as an integral part of the overall educational process.
- 9 That, wherever possible, there should be coordination of accreditation programs, particularly with respect to coordination of accreditation of hospital facilities for purposes of medical education; and that the various agencies involved should arrange to carry out their accreditations simultaneously insofar as possible and develop standardized procedures where the same information is required by several agencies.
- 10 That accreditation of facilities for internship and postgraduate medical education programs be extended to group practices and community health centres, but that these programs remain under the control of the medical school.
- 11 That a program for ensuring continuing competence be implemented for physicians and that periodically, perhaps every five years, every physician in Ontario be required to present to the College of Physicians and Surgeons of Ontario a certificate from a medical school in Ontario stating that he has maintained a satisfactory level of competence in the areas of medicine in which he ordinarily practises.
- 12 That the Ontario faculties of medicine develop the standards and programs which would be required for such certification; these could include formal course work, a contribution to the profession through research or teaching, or other appropriate methods.
- 13 That every possible encouragement and assistance be given by the Government of Ontario to the Federation of Licensing Bodies of Canada to develop national standards for licensing of physicians and to facilitate mobility of medical personnel between provinces.
- 14 That the College of Physicians and Surgeons of Ontario should establish, in conjunction with other licensing bodies and the Federal Department of Manpower and Immigration, a Canada-wide system to provide objective evaluation of foreign medical schools, but if it is not possible for such a joint program to be developed, that the College of Physicians and Surgeons of Ontario do so on its own.
- 15 That the Medical Council of Canada examinations be abolished for graduates of approved schools who are already registered to practise in their own jurisdictions and whose medical education can be considered equivalent to Ontario medical education up to the obtaining of the licence from the College of Physicians and Surgeons, but that the Medical Council of Canada examinations should be retained for graduates of Canadian medical schools and for those who have not had a medical education equivalent to that received in Ontario.

- That graduates from Ontario medical schools continue to receive a full and undifferentiated licence to practise medicine at the end of the internship year, and that practitioners from outside Ontario who have been trained in programs similar to those which presently exist in Ontario, continue to be eligible for licensing for full practice as at present; but if it should appear to the College of Physicians and Surgeons of Ontario that physicians are practising beyond their competence, serious consideration should be given to limited licensing.
- 17 That physicians be permitted to incorporate for the practice of medicine in Ontario, but that ownership of shares in such corporations be restricted to physicians licensed to practise in the province of Ontario.
- 18 That there be representation from the Department of Health and significant lay representation on the Council of the College of Physicians and Surgeons of Ontario.
- 19 That the fee schedule published by the Ontario Medical Association be a matter of prior negotiation by the Association and the Minister of Health, who would be advised by the proposed Fee Negotiations Advisory Committee.
- 20 That the fee schedule thus negotiated should ordinarily be the upper limit of the fee charged.
- 21 That in negotiating fees with physicians, the government in cooperation with the physicians consider methods of using the fee schedule to direct medical resources according to community needs and priorities.
- 22 That there be lay representation on the Discipline Committee of the College of Physicians and Surgeons of Ontario.
- 23 That professional activities studies aimed at improving quality control, such as those of the Hospital Medical Records Institute, be extended, that more public resources be made available for their support.
- 24 That physicians selling drugs to their own patients be required to comply with the laws governing the sale of drugs by non-physicians and keep the same records of prescriptions dispensed, including the number of times it has been filled, and so on, as are required of a pharmacist, but that this would not apply to dosages given as a direct treatment in the home or office by the physician.
- 25 That a physician should, upon the request of a patient, supply to the patient a written prescription of any drugs prescribed for the patient.
- 26 That medical students be taught and physicians be encouraged to prescribe generically when feasible.
- 27 That medical codes of ethics should not preclude physicians from teaching non-medical students in the healing arts or participating in continuing education programs for personnel already qualified to practise in any of the healing arts.

Dentists and Dental Care Personnel

- That the Royal College of Dental Surgeons of Ontario discontinue the practice of making grants from licensing fees collected by it either to the Ontario Dental Association or to the Canadian Dental Association, that the voluntary nature of these latter two professional organizations be recognized by elimination of its being a condition of receiving a licence that a dentist be a member of, or financially support, either of these two associations.
- That the dental hygienist be recognized as an important member of the 29 dental care team, and that existing university diploma programs be expanded to increase the number of hygienists trained.
- That there should be no restriction regarding the number of hygienists that 30 may be employed by a dentist, and that the Royal College of Dental Surgeons be required to repeal its by-laws imposing such a restriction.
- That the Ontario Council of Health examine the possible utilization of the 31 dental nurse along the lines of the New Zealand or English type and report its findings to the Department of Health with recommendations for specific measures.
- That the Royal College of Dental Surgeons be required to abolish its restric-32 tions on the practice of dental specialists that prevent them from practising general dentistry.
- That the regulations under the Public Hospitals Act be amended to require 33 that qualified dentists, particularly in dental specialties, should have access to the use of hospital facilities as required for procedures requiring hospitalization. Dentists should be eligible for full hospital privileges with the right to admit patients and with representation on the Admissions Committee. Dentists should follow the regular hospital procedures and their patients should be subject to the same admission requirements as patients admitted by physicians.
- 34 That in hospitals where there is a large demand for dental services a separate dental department with a Chief of Dental Services be established, and that in other hospitals the dental services should be under the department of surgery.
- 35 That one hospital in Metropolitan Toronto should develop outpatient dental services.
- That every hospital should have one or more dentists as members of the 36 attending staff, preferably including an oral surgeon where possible, to assist the medical staff as required.
- That a qualified dentist should be given the privilege of treating in hospitals 37 his patients requiring dental care while they are hospitalized for other conditions. This would particularly apply to long-term patients, in convalescent and rehabilitation institutions.

- 38 That caution should be exercised to ensure that financial arrangements regarding dental services are such that they do not create an unnecessary demand on hospitals where services could be adequately provided outside the hospital.
- 39 That the Dentistry Act be amended and section 13 repealed so that the Royal College of Dental Surgeons of Ontario no longer be empowered to establish entrance requirements for dentistry; also that section 14(1) be repealed to remove from the Board of the Royal College of Dental Surgeons of Ontario control over the curriculum of studies.
- That accreditation of Canadian dental schools be undertaken by the Association of Canadian Faculties of Dentistry. If, however, this Association is unable or unwilling to take on this function the Committee recommends two alternatives. The preferred alternative would be to leave the responsibility for accreditation with the Canadian Dental Association Council on Education. A second alternative would be for the Government of Ontario to direct the Department of University Affairs to establish accreditation teams which would be responsible for accrediting Ontario dental schools. In any of the above programs the Committee recommends that financial contributions to the cost of providing accrediting services in Ontario, if necessary, should be made by the Government of Ontario, and that it would be essential, because of the small number of dental schools in Ontario, that several members of the accrediting team be from outside Canada, particularly the United States.
- 41 That accreditation of graduate programs in dentistry should also be undertaken by the Association of Canadian Faculties of Dentistry as soon as possible.
- 42 That the Department of Health and the Ontario Council of Health evaluate the advantages of the various pre-dental educational requirements and that university schools of dentistry require not more than the minimum educational prerequisites necessary to produce a satisfactory practitioner.
- 43 That the Minister of Health of Ontario request that the Deans of faculties of dentistry in Ontario ensure that information concerning applications for entrance to dental schools in Ontario is properly analyzed and that a centralized application procedure for dentistry be developed, such as that now used for admission to most Arts and Sciences faculties in Ontario.
- 44 That greater emphasis be placed on preventive dentistry in the undergraduate dental curriculum.
- 45 That steps be taken to make dentistry students more aware of the possibilities and usefulness of dental auxiliaries, including their role in preventive dentistry.
- 46 That a drug formulary be developed for dentists listing the commonly used drugs with which dentists should be familiar, their side effects and other such information as would be required.

- 47 That dental specialty training programs continue to be given under the aegis of the faculties of dentistry.
- 48 That the Public Hospitals Act be amended to provide that certain hospitals be required to make the necessary facilities available and permit inpatients and outpatients to be available for the training of dental oral surgeons and periodontists in hospitals.
- 49 That a program for ensuring continuing competence be implemented for dentists and that periodically, perhaps every five years, every dentist in Ontario be required to present to the Royal College of Dental Surgeons of Ontario a certificate from a dental school in Ontario stating that he has maintained a satisfactory level of competence in the areas of dentistry in which he ordinarily practises.
- 50 That the Ontario faculties of dentistry develop the standards and programs which would be required for such certification; these could include formal course work, a contribution to the profession through research or teaching, or other appropriate methods.
- 51 That for the time being the training of dental hygienists continue in universities under appropriate faculties of dentistry but that the course should be shortened to one year after grade thirteen; and that the training programs for dental hygienists be reviewed continually by the Department of Health and the Ontario Council of Health and when feasible be moved from the universities to Colleges of Applied Arts and Technology, at which time an entrance requirement of grade twelve might be considered.
- 52 That appropriate programs be developed by schools teaching dental hygiene to provide refresher and retraining programs for hygienists who wish to return to practice.
- 53 That two avenues of gaining qualification as a dental technician should be open: one via an entrance requirement of grade twelve and completion of an approved program at a College of Applied Arts and Technology, and another via the apprenticeship route as at present, but removing the requirement of grade twelve and requiring only grade ten with the additional requirement that the applicant have an adequate knowledge of the English language.
- 54 That the Department of Health in conjunction with the Department of Education ensure that every primary school child in Ontario has a dental inspection at least once a year and that provision be made through the public health units for such inspections where they have not been done privately. A report of the inspection together with information regarding facilities where the child may receive appropriate dental treatment should be mailed

- to the parents of the child. The public health units should ensure that facilities are available for such treatment through either private dentists or public health dental units as appropriate.
- 55 That dentists be permitted to form corporations for the practice of dentistry in Ontario, but that ownership of the shares of such corporations be restricted to dentists licensed to practise in the province of Ontario.
- 56 That an additional faculty of dentistry be established in the province of Ontario in a university which presently has a faculty of medicine.
- 57 That the university schools of dentistry ensure that adequate financing is available for students wishing to undertake specialty training in dentistry, either through arrangements for them to work part time, through payment in the same way as for medical internes, or through establishment of appropriate fellowship programs; and that the Province of Ontario assist in making such monies available to the universities.
- 58 That the Ontario schools of dentistry work towards the establishment of joint examinations with the National Dental Examining Board to eliminate the necessity of two sets of examinations for the dental graduate.
- 59 That the Royal College of Dental Surgeons of Ontario should establish in conjunction with other licensing bodies and the federal Department of Manpower and Immigration, a Canada-wide system to provide objective evaluation of foreign dental schools; but if it is not possible for such a joint program to be developed at the federal level, Ontario should do so on its own.
- 60 That the Royal College of Dental Surgeons of Ontario take the initiative to establish a Federation of Licensing Bodies for Dentistry in Canada which could develop national standards for licensing of dentists and provide more flexible interchange of dental personnel between provinces.
- 61 That the Royal College of Dental Surgeons of Ontario no longer be required to prosecute persons for unauthorized practice under the Dentistry Act, but that this responsibility be transferred to the Crown Attorney for the county in which the offence is alleged to have been committed.
- for that it be mandatory that a dentist submit to his patient an itemized bill showing charges for professional fees and charges for dental appliances supplied; that the Royal College of Dental Surgeons of Ontario should declare as unprofessional conduct any mark-up by a dentist on a dental appliance dispensed; and that a dentist be allowed to charge only for professional services involved in the prescribing, fitting or adjusting of such dental appliances.
- 63 That the fee schedule published by the Ontario Dental Association be a matter of prior negotiation by the Association and the Minister of Health, who would be advised by the proposed Fee Negotiations Advisory Committee.

- That there be representation from the Department of Health and significant lay representation on the Council of the Royal College of Dental Surgeons of Ontario, and that there should also be lay representation on the Discipline Committee of the College.
- 65 That the present exception of dentists from the Medical Act continue and that dentists should continue as in the past to be able to use the title "Doctor".
- That the licensing of dental hygienists should cease to be a responsibility of the Royal College of Dental Surgeons of Ontario, and instead be made the responsibility of the proposed Health Disciplines Regulation Board through a Dental Hygienists Division, and that in the legislation outlining the requirements for licensing by the Board there be no restrictions regarding sex, age, nationality or citizenship.
- 67 That the Department of Health enact legislation to license dental laboratories in the province of Ontario. Such legislation should include a requirement that all such laboratories be licensed and that they be prohibited from dealing directly with the public. The Health Facilities Board should administer the licensing scheme. No requirements regarding qualifications of owners should be included and corporate ownership of such laboratories should not be prohibited. Regulations regarding quality control, advertising and other matters affecting laboratories should be established, but such requirements should be kept to the minimum required consistent with the public interest. The Health Facilities Board should have the power to suspend a licence, but the conditions under which such suspension might take place should be included in the legislation.
- 68 That dentists should be required to provide a formal prescription to dental laboratories for each item ordered; and that, if dentists ignore this requirement, this should be a matter for disciplinary action by the Royal College of Dental Surgeons.
- 69 That dental technicians be certified by the Health Disciplines Regulation Board through a Dental Technicians' Division. The Board should make provision for certifying dental technicians trained outside Ontario, but who have the equivalent education and/or experience, on the basis of their competence. Certification would not be a requirement for the practice of dental technology but only those so certified should be able to use the title "Registered Dental Technician".

Nursing

70 That studies be undertaken by the Department of Health and the Council of Health on the role and relationships of professions and occupations in health care and that as part of these studies a continuing review of the appropriateness of the responsibilities of nurses and nursing assistants should also be undertaken.

- 71 That clinical specialties in nursing be developed for diploma and degree level nurses, and that recognition be given by the College of Nurses and where appropriate by the Ontario Hospital Services Commission to such specialties. The Committee realizes that in developing such specialties nurses will require the assistance of physicians and hospital officials. The Department of Health should take the initiative in bringing together those involved to work out means of developing such specialties and providing recognition for them, including representatives of nursing, medicine and hospitals. While it would be advisable to develop these specialties through a "Royal College" type of specialty body at the national level, if this is not done, they should be developed at the provincial level for Ontario.
- 72 That any body recognizing clinical specialties should take into consideration the problem of nurses now practising who have many years of experience in a given specialty and should arrange for appropriate recognition of such experience. None of the new clinical specialties should require formal training longer than one year, and the training programs could vary from purely clinical for some specialties to largely academic for others, as well as various combinations of such training programs as may be deemed necessary.
- 73 That an attempt be made by the disciplines concerned and the Department of Health to develop a nurse-midwife in Ontario and that such a nurse-midwife be regarded as a clinical specialist in nursing. The Committee foresees that nurse-midwives would work in the hospital setting under the general direction of physicians but might in addition undertake pre-natal and post-natal care in outpatient clinics and group practices.
- 74 That nurses should be represented in planning and determining their own role and should be included on interdisciplinary committees where their functions are being discussed.
- That the Province of Ontario enact appropriate legislation to facilitate collective bargaining for nurses, ensuring that in such legislation there are safeguards to maintain essential services and that the legislation also provides for compulsory arbitration of disputes. Such legislation should not specifically designate any agency as the exclusive bargaining agent for nurses but should be broad enough to encompass the Registered Nurses' Association of Ontario which might act as the bargaining agent when requested by the majority of nurses employed in a given bargaining unit.
- 76 That the Department of Health and the Ontario Hospital Services Commission recognize that as hospitals and other public institutions are the primary employers of nurses and nursing assistants and hence are predominant in determining conditions of demand for nursing services including work environment of nurses, salary schedules, and so on, nurses are not working in an open labour market. That accordingly the Department of Health

- should take the responsibility to initiate intensive studies of the special features of this labour market and encourage adaptations to improve the conditions of employment of nurses.
- 77 That nursing manpower planning, for both immediate and long-range planning of the needs for nursing manpower, be included as a function of the Ontario Council of Health and of the Research and Planning Branch of the Department of Health.
- 78 That the Department of Health and the Ontario Council of Health undertake immediate and intensive study of nursing manpower availabilities and potentials including data on those presently not at work and apparent present requirements and uses of nursing personnel.
- 79 That if as a result of the growth of care in rehabilitative, convalescent, and chronic care institutions and homes for the aged, the need arises for special short-term training courses for registered nurses and registered nursing assistants, the Department of Health should arrange for the provision of appropriate training courses to prepare them for this special field of care.
- 80 That the inspection and consulting services of the present Ontario Hospital Services Commission be augmented under the proposed Ontario Health Services Insurance Commission to effect more systematic and comprehensive development of health care standards and personnel utilization across the province. Special attention by this unit should be given to the development of administrative procedures which would make possible greater utilization of part-time properly qualified nursing staff.
- 81 That the Department of Health should make an effort to rationalize the use of nurses and to attract into employment some of the qualified nurses not now in practice. Steps should also be taken to determine what could be done by use of incentive and salary differentials to facilitate greater opportunities for part-time work in hospitals for nurses, to encourage nurses to take holidays in off-seasons, and to attract nurses into specific types and geographic areas of nursing where there are particular shortages. The Province should consider also the establishment of a Nursing Reserve Group possibly on a regional basis similar to that developed in the province of Alberta.
- 82 That a central clearing house for applicants to schools of nursing in Ontario other than university schools of nursing be established by the Department of Education with appropriate analysis of sources of applications and follow-up research being made as required, and that the university schools of nursing establish a corresponding system for applicants to university schools of nursing.
- 83 That considering the degree of dependence on registered nurses coming to Ontario from outside the province, the Province of Ontario should do everything possible to keep the diploma schools of nursing filled in order that it may be assured of an adequate continuing domestic supply of nurses. Because of the evidence received by the Committee that full use is not being made of

- all the schools of nursing, we recommend that measures be undertaken to attract more students into nursing by making salaries and working conditions for graduate nurses more attractive.
- That control of diploma level nursing education should pass to the Department of Education with a Nursing Education Advisory Committee being established to review nursing education and to advise on curriculum, length of programs and other relevant matters. Representation on the Nursing Education Advisory Committee should include members from university faculties of nursing, faculties of medicine, hospital associations, the nursing profession, the Department of Health, the Department of Education, and the general public.
- 85 That the expansion of schools of diploma level nursing should take place in the Colleges of Applied Arts and Technology to the extent feasible.
- That at least for some considerable time, the present hospital nursing schools, regional schools of nursing and "special" schools of nursing should continue to operate with such phasing out as seems timely.
- 87 That the financing of new schools of nursing be under the Department of Education, and that financing of hospital, regional and special schools of nursing be removed from the aegis of the Ontario Hospital Services Commission. The Committee is aware that there will be some short-term problems on matters of administration in such a change and recommends that house-keeping functions, such as accounting, and paying of bills, should continue to be carried out by the hospital in which a school of nursing may function. Budgeting and financing, however, should be done through the Department of Education if at all possible; if this is not feasible they should be done through the Department of Health but not through the Ontario Hospital Services Commission.
- 88 That the manpower interests of the Department of Health in educational programs for nurses be recognized, and to this end that manpower aspects of nursing education programs be considered by the proposed Coordinating Committee of the Cabinet on Health Education.
- 89 That prior to new schools of nursing being established, the Nursing Education Advisory Committee ensure that adequate clinical facilities will be available for the students before the school is approved.
- 90 That the use of clinical facilities by the students of nursing should not imply that the student has a service obligation to the institution providing these facilities.
- 91 That the length of training programs for diploma nurses be not longer than two years academic.
- 92 That post-R.N. certificate programs in public health, teaching, and nursing administration continue to be offered in university schools of nursing.

- 93 That the Province of Ontario ensure that more facilities are available for the continuing education of nurses, and that nurses be encouraged by financial and other incentives to participate in such continuing education programs.
- 94 That nursing schools encourage diploma nurses who may be able to take advantage of mature student requirements of the universities and who have the appropriate potential and interest to undertake degree programs in nursing.
- 95 That for registered nurses authorized by law to practise nursing and demonstrating a standard of excellence in practice, the opportunity to obtain higher professional educational qualifications ought not to be foreclosed by reason of a failure to take any part of a fifth year of a five-year stream in the Ontario high school system.
- That the Government of Ontario take such measures as are necessary to 96 increase enrolment in university degree programs in nursing. Such measures should include (a) appropriate salary levels for teachers in all nursing programs in order to attract adequate numbers of applicants with appropriate qualifications to undertake degree courses; (b) enlargement of facilities at present university schools of nursing to accommodate an increased number of nursing students; and (c) expansion of programs of graduate studies in nursing and appropriate expansion of facilities to supply more teachers with adequate financial support to assist graduate students and with opportunities and support for nursing research by faculty members; the foregoing is based on the belief that in the future, nursing teachers in diploma schools of nursing should have a university degree and that nursing teachers in the university schools of nursing should have training beyond the Bachelor of Science of Nursing, although the Committee recognizes that this will not be possible in the immediate future.
- 97 That the length of registered nursing assistant training programs be not longer than thirty-six weeks.
- 98 That for the time being, the educational programs for registered nursing assistants remain the responsibility of the Department of Health.
- 99 That there should be no overall licensing of those who nurse for hire.
- 100 That organized bodies of nursing in Ontario take the initiative with their counterparts throughout Canada to encourage the International Council of Nurses to develop world-wide agreement on qualifications for practice in order to facilitate the international mobility of nurses.
- 101 That the College of Nurses of Ontario remain the certifying and regulatory body for registered nurses in Ontario, but that there be representation from the Department of Health and significant lay representation on the Board of the College.

- That responsibility for the certification and discipline of registered nursing 102 assistants be removed from the College of Nurses and assigned to the proposed Health Disciplines Regulation Board through a Division for registered nursing assistants.
- 103 That nurses trained outside Ontario as psychiatric nurses in institutions which meet the educational standards and quality of instruction satisfactory to the College of Nurses should be registered by the College of Nurses on a special register as certification of competence in psychiatric nursing. Though nurses registered in such a way would not be fully qualified registered nurses, they should be given status and pay equal to those of registered nurses when working in a psychiatric setting.
- 104 That opportunities be made available at some of the nursing schools for student nurses to specialize in psychiatry and to devote a greater part of their practical experience during their undergraduate program to psychiatric nursing. Such programs would, however, lead to full certification as a registered nurse as the student nurse would still be required to fulfil all the requirements for a registered nurse but would have specialized knowledge in psychiatry. Ontario Hospitals and the psychiatric units of general hospitals should be made available for the clinical aspects of such programs.
- That psychiatric nursing be recognized as a clinical specialty in nursing and 105 that postgraduate programs be established for diploma nurses to specialize in this field as well as specialty programs at the Master's degree level for degree nurses to provide the teaching and research nursing personnel required in this field.
- That the Department of Education should consider the development of a 106 pilot project for a two-year program in psychiatric nursing, similar to those offered in England and Alberta. Graduates from such a program would be certified as psychiatric nurses on the special register of the College of Nurses. Opportunities should be available to such nurses to continue their education, and with approximately one further year's training in general nursing they should be eligible for qualification as a registered nurse.

Pharmacy

- That a second faculty of pharmacy be established at an Ontario university, 107 as part of a health sciences centre, in order to maintain an adequate supply of pharmacists in the province of Ontario.
- That legislation be enacted to provide that retail pharmacies may remain 108 open when a pharmacist is not on duty, provided that all drugs and medical preparations which, for the protection of the public, should be sold only by a pharmacist are included in a professional section, which must be closed in the pharmacist's absence.

- 109 That hospitals be encouraged but not required by law to have a registered pharmacist in charge of the pharmacy, and that there should be assurance of adequate control of drugs in every hospital. Where a hospital wishes and is able to hire registered pharmacists, the Ontario Hospital Services Commission should make proper provision in the hospital budget to pay a professional salary to such a pharmacist.
- That an emergency pharmacy service should be established in hospitals which would provide by sale such drugs as are necessary as part of emergency treatment at times or during hours when it would be difficult for emergency patients to have prescriptions filled by a retail pharmacy.
- 111 That an immediate review be made by the health insurance authorities of the Government of Ontario to study the inclusion of drugs and pharmacy services under publicly financed health insurance and to ensure that if these services are not immediately included, there is not a resulting distortion in the provision of health care.
- 112 That the Pharmacy Act be amended to authorize the use of qualified pharmacy assistants working in pharmacies under the direction of pharmacists.
- 113 That a pilot project be undertaken at a College of Applied Arts and Technology, preferably one already teaching in the health sciences, to establish an appropriate training course for pharmacy assistants.
- That pharmacy assistants be certified by the Health Disciplines Regulation Board, through a Division for pharmacy assistants.
- 115 That programs of study in specialized areas of pharmacy be made available by faculties of pharmacy to pharmacists who have completed their undergraduate studies in pharmacy.
- 116 That a program for ensuring continuing competence be implemented for pharmacists and that periodically, perhaps every five years, every pharmacist in Ontario be required to present to the Ontario College of Pharmacy a certificate from a faculty of pharmacy in Ontario stating that he has maintained a satisfactory level of competence in those areas of pharmacy in which he ordinarily practises.
- 117 That the Ontario faculties of pharmacy develop the standards and programs which would be required for such certification.
- 118 That the requirement of the College of Pharmacy that applicants from outside Ontario reside in Ontario for six months before being eligible to apply for licensing as a pharmacist be abolished, and that the requirement to complete a course in pharmaceutical jurisprudence not be permitted to delay unduly the applicant's entry to the profession.
- 119 That the Pharmacy Act be repealed and replaced by a new Act which would (a) provide for the regulation of the profession of pharmacy only, and

- (b) terminate the control of the Ontario College of Pharmacy over education. The Ontario College of Pharmacy should be continued, and should continue to be responsible for the licensing and discipline of members of the profession.
- 120 That there be representation from the Department of Health and significant lay representation on the Council of the Ontario College of Pharmacy.
- That separate legislation be enacted to regulate the sale of pharmaceuticals and the operation of pharmacies and that this legislation be administered by the Health Facilities Board in a manner similar to that now found in Part II of the Pharmacy Act for the regulation of pharmacies.
- 122 That the Pharmacy Act be revised to permit pharmacists in Ontario to fill prescriptions of physicians or dentists in other provinces who are themselves qualified to prescribe in their own provinces.
- That unless specifically directed by the physician not to label the prescription on each occasion, pharmacists be required to label each prescription dispensed as to the content and name of the drug contained therein.
- 124 That no change be made in the law now found in the Pharmacy Act with relation either to the existing pre-1954 corporate charters, or to the existing requirement that majority control of incorporated pharmacies remain in the hands of licensed pharmacists; but that the matter of corporate practice be kept under review by the Department of Health.

Optometrists, Ophthalmic Assistants and Ophthalmic Dispensers

- 125 That no movements of educational facilities connected with the healing arts be allowed without the prior consultation of the appropriate authorities including the proposed Coordinating Committee of the Cabinet on Health Education, the Department of Health, Department of Education and the Department of University Affairs.
- 126 That the medical profession not interfere with the choice of any of its members to participate in the education of optometrists, and that no segment of organized medicine interfere with the freedom of any physician to teach in a school of optometry and participate in its educational program.
- 127 That the Optometry Act be amended to permit the use by optometrists of drugs needed for diagnostic purposes, provided that undergraduate programs in the use and effect of such drugs are instituted, and that optometrists now practising who wish to use drugs meet the requirements of a post-graduate course to be offered by the School of Optometry.
- 128 That the expanded diagnostic functions of the optometrist should not be construed as an invitation to treat pathological conditions of the eye but

30 Recommendations

- rather to enable optometrists to be in a better position to make referrals of patients requiring medical care to an ophthalmologist or other appropriate physician.
- 129 That optometrists continue to be prohibited by law from using the title "Doctor", with or without a qualification.
- 130 That children under six years of age be permitted optometric care by an optometrist only on referral from a physician.
- 131 That the Government of Ontario, and bodies responsible to it, take appropriate steps to encourage and facilitate the inclusion of optometrical practice in group practice teams, community health centres and hospitals.
- 132 That a program for ensuring continuing competence be implemented for optometrists and that periodically, perhaps every five years, every optometrist in Ontario be required to present to the College of Optometrists a certificate from a school of optometry in Ontario stating that he has maintained a satisfactory level of competence in the practice of optometry.
- 133 That the School of Optometry develop the standards and programs which would be required for such certification.
- 134 That the control of education of optometrists be removed from the College of Optometrists and the Optometry Act, and that graduates in optometry from the School of Optometry at the University of Waterloo or from any other Ontario university that may hereafter establish a school of optometry be licensed without further examination by the College of Optometrists.
- 135 That contact lenses be dispensed only on a written prescription for contact lenses of an optometrist or an ophthalmologist.
- 136 That the College of Optometrists of Ontario continue as the licensing body for optometrists, but that there be representation from the Department of Health and significant lay representation on the Board of the College of Optometrists.
- 137 That no change be made in the Optometry Act, section 15 (a), subsections 1 and 2 and that a retail merchant should not be prevented from employing an optometrist or operating an optical goods department.
- 138 That the Optometry Act require that optometrists submit to their patients an itemized bill showing charges for professional fees and charges for goods supplied; and that, if it wishes, the College of Optometrists be empowered to declare as unprofessional conduct any mark-up by an optometrist on ophthalmic appliances.
- 139 That the sale of ready-to-wear eyeglasses by a retail merchant at his place of business not be prohibited, but that there be no change in the present provisions of section 21 (a) of the Ophthalmic Dispensers Act which pro-

vide that "the Lieutenant Governor in Council may make regulations governing or restricting such sale or offering for sale and prescribing the terms and conditions thereof and designating the material and kind of spectacles and eye glasses that may be sold out of this section".

- 140 That ophthalmic dispensers not be prohibited from refilling prescriptions for eyeglasses without re-examination, and that an optometrist or ophthalmologist provide a patient with a written prescription after an examination to permit the patient to retain the prescription and choose his own supplier.
- 141 That the fee schedule published by the Optometrical Association of Ontario be a matter of prior negotiation by the Association and the Minister of Health, who would be advised by the proposed Fee Negotiations Advisory Committee.
- 142 That the Department of Education encourage the development of a formal training program for ophthalmic dispensers in either a College of Applied Arts and Technology or a technical school, and that the requirements for licensing of ophthalmic dispensers be changed to include such a training program and to provide for the licensing of its graduates as ophthalmic dispensers, provided that they serve a further period of one year under the direction of a licensed ophthalmic dispenser or other appropriate person as the legislation may permit.
- 143 That an Ophthalmic Dispensers' Educational Advisory Committee be appointed to advise the Minister of Education on matters pertaining to the education of ophthalmic dispensers and to review the educational programs for ophthalmic dispensers and examine the product of the formal training program to determine whether the entire period of training for ophthalmic dispensers might be shortened or converted to this system.
- 144 That the present entrance requirement of grade ten to undertake training as an ophthalmic dispenser should not be changed, and that the overall period of training should not be extended beyond that presently required.
- 145 That training and experience in fitting of contact lenses be included in the basic training of the ophthalmic dispenser either in the proposed new system of education or under the present system, with appropriate examinations being conducted at the completion of the training, and that all ophthalmic dispensers successfully completing the training be certified as contact lens technicians by the Health Disciplines Regulation Board.
- 146 That the fitting of contact lenses by ophthalmic dispensers be limited to those practitioners who have successfully completed the necessary courses in contact lens fitting and have been certified as a contact lens technician by the Health Disciplines Regulation Board.
- 147 That the present requirement that applicants be twenty-one years of age before being licensed as ophthalmic dispensers be eliminated.

- 148 That ophthalmic dispensers be licensed by the Health Disciplines Regulation Board through a Division for ophthalmic dispensers.
- 149 That section 20(b) of the Ophthalmic Dispensers Act be clarified to ensure that safety eyeglasses are excepted from the supervision of a licensed ophthalmic dispenser only if they do not incorporate a prescription.
- 150 That advertising by ophthalmic dispensers should be reviewed by the Health Disciplines Regulation Board.

Mental Health Personnel

- 151 That a high priority be given to the training of additional psychiatrists in Ontario.
- 152 That the College of Physicians and Surgeons of Ontario be urged to establish which specific specialty qualifications granted outside Canada are equivalent to those granted by the Royal College of Physicians and Surgeons of Canada and that physicians with such appropriate specialty qualifications, provided they are appropriately designated as specialists in the jurisdiction in which they should be eligible to be so designated, should be included without further training or examination, on the Specialist Register of the College of Physicians and Surgeons of Ontario.
- 153 That continuing education programs for general practitioners should place special emphasis on psychiatric treatment in order that general practitioners may be better trained and have a better understanding of the diagnosis and treatment of mental illness.
- 154 That the psychiatric content of medical education and the education of the new "general physician" be expanded so that first-line medical practitioners can play larger and more effective roles in mental health care.
- That a Psychoanalysts Certification Act be enacted to establish a Psychoanalysts Certification Board and to prohibit a person from representing himself to be a psychoanalyst unless he holds a certificate of registration issued by a Psychoanalysts Certification Board. No exceptions should be made to this restriction. Such an Act should be similar in form to that of the Psychologists Registration Act. The Act should permit a psychoanalyst who is not a medical practitioner to take patients directly, but where a patient has not been referred by a qualified medical practitioner, the psychoanalyst must arrange for a medical examination to ensure that the problem is not physical or organic in nature before treating the patient.
- 156 That the members of the Psychoanalysts Certification Board should, as in the case of other professional regulatory bodies, be elected from among the registrants with representation from the Department of Health and signifi-

- cant lay representation included on the Board. An initial Board, however, should be appointed by the Lieutenant Governor in Council for an interim period.
- 157 That the education of psychoanalysts should, as soon as possible, be brought within the purview of a recognized educational institution and that, when feasible, the control of education should be removed from the regulatory body.
- 158 That at universities where there is a health sciences centre and no clinical psychology program, departments of psychology be encouraged to establish a clinical psychology program and that clinical psychology should be represented in the health sciences centre. Where no program of clinical psychology is established in the department of psychology in universities with a health sciences centre, schools of clinical psychology should be established within the university and with representation on the health sciences centre but not attached to any particular faculty.
- 159 That special funds be made available by the Province of Ontario to provide staff and encourage research in the universities in clinical psychology, in order that greater numbers of students may be encouraged to enter this field with a resulting increase in the number of clinical psychologists.
- 160 That, if it is necessary to provide incentives to obtain more clinical psychologists, the profession should be made more attractive by improvements in salaries and working conditions rather than providing special subsidization of the education of individual clinical psychology students.
- 161 That services of clinical psychologists should be covered under publicly financed health insurance plans, with appropriate safeguards introduced to ensure that coverage is given only for essential health services.
- 162 That certified clinical psychologists should be able to take patients directly, but where a patient has not been referred by a qualified medical practitioner, psychologists must arrange for a medical examination to ensure that the problem is not physical or organic in nature before treating the patient.
- 163 That legislation be enacted for the certification of clinical psychologists under a Clinical Psychologists Certification Board.
- 164 That the members of the Clinical Psychologists Certification Board should, as in the case of other professional regulatory bodies, be elected from among the registrants with representation from the Department of Health and significant lay representation included on the Board. The initial Board, however, should be appointed by the Lieutenant Governor in Council for an interim period.
- 165 That no psychologist except one certified by the Clinical Psychologists Certification Board be permitted to hold himself out as qualified to practise

in the field of mental health. Exemptions, however, should be allowed for psychologists in the employment of federal or provincial governments or by a university. The qualifications for certification as a clinical psychologist should remain at the Ph.D. level with one year's experience in clinical psychology continued as a requirement.

- 166 That the Clinical Psychologists Certification Board make provisions for certifying persons as clinical psychologists who have received their training in clinical psychology outside Ontario where the clinical psychologist's education and experience are deemed equivalent to that which is required in Ontario.
- 167 That a program for ensuring continuing competence be implemented for clinical psychologists and that periodically, perhaps every five years, every certified clinical psychologist in Ontario be required to present to the Clinical Psychologists Certification Board a certificate from an appropriate university department of psychology, stating that he has maintained a satisfactory level of competence in the area of psychology in which he ordinarily practises.
- 168 That the university departments of psychology in Ontario develop the standards and programs required for such certification; these could include formal course work, contribution to the profession through research or teaching or other appropriate methods. Such standards and programs should take cognizance of the nature of the practice of individual clinical psychologists.
- That programs for the education of child care workers be established in Colleges of Applied Arts and Technology, and that an Educational Advisory Committee for Child Care Work be appointed to advise the Minister of Education on length of programs, curriculum, and so on. Such programs should have as entrance requirements completion of grade twelve and should be not longer than two years. Students with advanced standing, grade thirteen or some university credits should be given the opportunity to complete the course in less time.
- 170 That any education programs for child care workers be carried on in cooperation with the employers of child care workers in order that the educational experience may be as profitable as possible and that adequate opportunities are made available for practical experience.
- 171 That at this time, child care institutions not be prevented from conducting their own training programs for child care workers which may emphasize a particular philosophy or type of treatment.
- 172 That no provincial licensing or certification be introduced at this time for child care workers.
- 173 That the Government of Ontario and the universities in Ontario place greater emphasis on and provide more financial resources for research into the causes and treatments of mental illness, and that until there is more substantial evidence, no one mode of therapy be emphasized exclusively in the training of mental health workers.

Medical and Psychiatric Social Work

- 174 That increased resources be devoted to the production of more medical and psychiatric social workers. We note the experimentation being undertaken in developing different levels of social workers, both at the undergraduate and graduate (Bachelor's and Master's) level in university and at the diploma level in Colleges of Applied Arts and Technology, and recommend that programs continue to be developed at all levels to meet the needs of the community for varying levels of social service personnel.
- 175 That medical and psychiatric social work be considered a specialty of general social work at the graduate level, and that programs in medical and psychiatric social work be made available for social workers wishing to pursue their studies in these areas.
- 176 That programs should be established for social workers with either B.S.W. or M.S.W. degrees to take further training in psychiatric social work, and that such programs be made available through the existing schools of social work.

Chiropody

- 177 That the existing Chiropody Act be repealed and new legislation enacted, to permit the practice of chiropodists in Ontario with training similar to that received by chiropodists in Britain, and with a scope of practice similar to that permitted to chiropodists in Britain.
- 178 That a course in chiropody be established in Ontario either in a College of Applied Arts and Technology or in some other appropriate educational institution.
- 179 That such a course in chiropody should be not longer than three years, having an entrance requirement initially of grade thirteen with the possibility that, upon review by the Department of Health and the Ontario Council of Health, those with grade twelve might be considered at a later date. The course should be similar to the training programs for British chiropodists.
- 180 That chiropodists not be permitted to practise surgery, other than minor cutting of the skin which may be required in the treatment of such matters as ingrown toenails.
- That chiropodists not be given the right to prescribe drugs or to use anaesthetics other than topical. However, the Committee urges that this limitation be kept under study by the Department of Health and the Ontario Council of Health to see if it should be modified in the future.
- 182 That chiropodists should not have the right to use x-ray facilities directly, but should be empowered to refer patients to hospitals or private x-ray

- facilities in order to obtain necessary x-ray pictures for the diagnosis of foot problems, and that the x-ray pictures should be given to the chiropodist.
- That there be included in the new legislation governing chiropody an exemp-183 tion to permit American-trained chiropodists presently practising in Ontario to continue to use x-ray diagnostic equipment directly.
- That chiropodists have access to public as well as private laboratory facili-184 ties for necessary tests on their patients, but that the interpretation of these tests should be done by a competent person operating the laboratory with the interpretation then being given to the chiropodist, and that if the results indicate a condition beyond the scope of treatment of a chiropodist, there should be mandatory referral of the patient to an appropriate physician.
- That chiropodists' services in hospitals be covered by hospital insurance, 185 and that provision for payment of the salaries of chiropodists in hospitals as requested be included by the Ontario Hospital Services Commission in the budget of the requesting hospital.
- 186 That chiropodists should be regarded as independent practitioners entitled to carry on private practice without referral from physicians and that their training enable them to know when to make referrals to physicians.
- That physicians should be encouraged to teach in schools of chiropody, and 187 that any existing barriers to teaching by physicians be removed.
- That chiropodists continue to be prohibited by law from using the title 188 "Doctor", with or without a qualification.
- That in the treatment of foot conditions within the scope of practice of a 189 chiropodist and covered under the Ontario Health Services Insurance Plan, patients should have free choice of the services of a physician or a chiropo-
- That chiropodists, educated at an approved school of chiropody in Britain 190 or elsewhere in schools providing training equivalent to the training recommended in Recommendation 179, should be entitled to practise in Ontario.
- That chiropodists be licensed by the Health Disciplines Regulation Board 191 through a Division for chiropodists.
- 192 That the fee schedule published by the Ontario Podiatry Association be a matter of prior negotiation by the Association and the Minister of Health, who would be advised by the proposed Fee Negotiations Advisory Committee.

Health Therapists

That the Ontario Council of Health and the Department of Health exammine experience elsewhere and undertake controlled experiments to study

- how alterations in the role and function of physiotherapists and physiotherapy technicians might prove beneficial to hospitals or other employing agencies as well as to the employees themselves.
- 194 That the services of licensed physiotherapists in private practice be covered under publicly financed health insurance plans wherever the treatments are provided.
- 195 That the fee schedule for physiotherapists be a matter of prior negotiation by the physiotherapists and the Minister of Health, who would be advised by the proposed Fee Negotiations Advisory Committee.
- 196 That the present educational programs for physiotherapists located in universities should continue but that such programs should take place, where possible, within schools of health sciences.
- 197 That if studies recommended regarding the role of physiotherapy personnel reveal there is a need for a second level physiotherapist, such personnel should be educated in programs at the Colleges of Applied Arts and Technology.
- 198 That educational programs for physiotherapists at universities presently offering diploma programs be upgraded to degree courses as soon as feasible.
- 199 That graduates from diploma courses in physiotherapy be able to continue into degree programs with appropriate credits being given for their diploma courses.
- 200 That accreditation of schools of physiotherapy in Ontario should continue to be under the auspices of the Canadian Physiotherapy Association and the Canadian Medical Association.
- 201 That the internship period required by the Canadian Physiotherapy Association for membership in that Association and for registration as a physiotherapist in Ontario should continue for the present, with internship programs being accredited jointly by the Canadian Physiotherapy Association and the Canadian Medical Association.
- That a Master's degree program for physiotherapists be established in at least one Ontario university as soon as possible to develop the necessary teaching and research personnel required in physiotherapy.
- 203 That a program for ensuring continuing competence be implemented for physiotherapists and that periodically, perhaps every five years, every physiotherapist in Ontario be required to present to the Health Disciplines Regulation Board a certificate from an accredited school of physiotherapy in Ontario stating that she has maintained a satisfactory level of competence in the practice of physiotherapy.
- That the accredited schools of physiotherapy in Ontario develop the standards and programs which would be required for such certification.

- 205 That refresher programs for physiotherapists should be established in order to attract into employment some of the qualified physiotherapists not now in practice.
- 206 That physiotherapists be licensed by the Health Disciplines Regulation Board, through a Physiotherapy Division of the Board.
- 207 That the Health Disciplines Regulation Board attempt to develop standards of licensure for physiotherapists which could be recognized by other provinces in Canada and promote nation-wide recognition of standards for the greater mobility of physiotherapists.
- 208 That the Health Disciplines Regulation Board be empowered to license as physiotherapists, persons who have received training in physiotherapy outside Ontario, equivalent to that given in Ontario, and that the Board should determine such equivalents.
- 209 That physiotherapists educated in Ontario at educational institutions with accredited physiotherapy programs, who have completed such practical experience as may be required by the Health Disciplines Regulation Board, be automatically licensed without further examination.
- 210 That if, as a result of further studies of the role of physiotherapists, the need for physiotherapy technicians is established, such technicians should also be licensed by the Health Disciplines Regulation Board.
- 211 That improved salary schedules for occupational therapists be developed by the Ontario Hospital Services Commission in order to encourage more persons to enter occupational therapy, and that greater efforts be made to recruit more men into this occupation.
- That at least one pilot project for educating occupational therapists in a program offered in an appropriate College of Applied Arts and Technology be undertaken, and that immediate studies be made by the Department of Health and the Council of Health on the role of occupational therapists trained in such programs, and their contribution to the health system. When such a course is introduced, an Educational Advisory Committee should be appointed to advise the Minister of Education on such matters as curriculum, and length of program, as outlined in Chapter 26.
- That encouragement be given to the development of degree programs for occupational therapists at universities in Ontario presently teaching other health disciplines.
- 214 That a graduate program in occupational therapy should be established as soon as possible in at least one university in Ontario.
- 215 That refresher programs be made available for occupational therapists through educational institutions in order to attract into employment some of the qualified occupational therapists not now in practice.

- That programs in physiotherapy and occupational therapy be separated with some basic courses taken together where appropriate, and that both programs be offered within a school of health therapy within a health sciences centre where feasible.
- That occupational therapists be certified by the Health Disciplines Regulation Board through an Occupational Therapy Division of the Board.
- That remedial gymnastics be recognized as an important aspect of rehabilitative therapy and that encouragement be given to the teaching of remedial gymnastics in educational programs for physiotherapists or physiotherapy technicians as appropriate.
- That the control of education programs for remedial gymnasts be under the Department of Education.
- 220 That a Health Therapy Education Advisory Committee be appointed, advisory to the Minister of Education, composed of persons knowledgeable in the fields of remedial gymnastics and massage therapy, from hospital associations, the Department of Health and the Department of Education and which would make recommendations regarding entrance requirements, course length and establishment of new programs in health therapy in educational institutions such as Colleges of Applied Arts and Technology.
- That a pilot project be established for the training of remedial gymnasts in an appropriate College of Applied Arts and Technology.
- That remedial gymnasts be certified by the Health Disciplines Regulation Board through a Remedial Gymnasts Division. Remedial gymnasts now eligible for membership in the Association of Remedial Gymnasts of Ontario should automatically be eligible for certification by the Board.
- 223 That remedial gymnasts should be limited to providing treatment only on the prescription of a physician or under the direction of a physiotherapist acting on the prescription of a physician.
- That remedial gymnastic services should be included for coverage under publicly financed health insurance plans as appropriate.
- That at least one educational program for massage therapists should be introduced in an appropriate College of Applied Arts and Technology and that the Health Therapy Educational Advisory Committee should advise the Minister of Education on the length of the program, entrance requirements, and related matters.
- That once training programs in massage therapy are introduced under the jurisdiction of the Department of Education, only masseurs educated in such approved programs be eligible for licensing as massage therapists by the Health Disciplines Regulation Board.

- 227 That the Health Therapy Educational Advisory Committee should immediately study the appropriateness of establishing at least one program in a College of Applied Arts and Technology for training health therapy technicians with opportunities for the students to specialize in remedial gymnastics, massage therapy or hydrotherapy.
- That the present Drugless Practitioners Act be repealed and the Board of Directors of Masseurs abolished, and that the regulation of general masseurs be transferred to a government department or agency, other than the Department of Health, but that those masseurs who wish to provide massage therapy be required to be licensed by the Health Disciplines Regulation Board through a Massage Therapy Division.
- 229 That masseurs presently registered by the Board of Directors of Masseurs should not be eligible for licensing automatically by the Health Disciplines Regulation Board, but that the Massage Therapy Division should examine the qualifications of each applicant and, where necessary, establish examinations or arrange for further training of applicants to ensure they have adequate qualifications to provide massage therapy services. Those masseurs licensed by the Health Disciplines Regulation Board should be designated as massage therapists and limited to the system of treatment of massage therapy as defined in Recommendation 231 and permitted to provide massage therapy only upon the prescription of a qualified physician or under the direction of a registered physiotherapist who has received such a prescription.
- That persons trained in massage therapy outside Ontario, but who have qualifications similar to those required in Ontario, be licensed by the Health Disciplines Regulation Board despite a lack of prerequisite education prior to completion of educational programs in massage therapy.
- That the system of treatment that may be carried out by a massage therapist be defined as the treatment of persons by (a) kneading, rubbing and massaging of the body without adjusting or attempting to adjust any boney structure thereof, (b) use of steam, electric light, vapour or fume baths and (c) the use of thermal or ultraviolet lamps.
- 232 That massage therapy treatments prescribed by a qualified physician and given by a licensed massage therapist, a physiotherapist, or other practitioner qualified to give the treatments, be covered by publicly financed health insurance plans.
- 233 That the Department of Health undertake a review of salaries and working conditions, and other factors affecting the recruitment and employment of speech therapists and audiologists to ensure that conditions are as conducive as possible to attracting greater numbers of personnel into this area of health services.

- That speech therapists directing speech therapy programs in the school system not be required to qualify as classroom teachers, and that more teachers be trained as speech correctionists who could assist qualified speech therapists in the detection and treatment of speech disorders among school children.
- That separate undergraduate degree programs in speech therapy and audiology be developed as soon as possible in Ontario universities teaching other health sciences, and that these programs be included in a school of health therapy where developed; but where no school of health therapy exists, educational programs for speech therapists and audiologists should be taught within the Faculty of Medicine, with care taken to ensure that no medical specialty dominates in the development of the curriculum and that there is adequate emphasis on the social and psychological aspects of the training as well as on physical medicine.
- 236 That, as soon as feasible, at least one university in Ontario which develops undergraduate degree programs in speech therapy and audiology, also establish postgraduate programs in speech therapy and audiology leading to a Master's degree.
- 237 That special programs for training speech correctionists be established by university schools of speech therapy, and that such programs should be offered during the summer in order to make them available to teachers wishing to obtain special training in speech problems.
- 238 That a program for ensuring continuing competence be implemented for speech therapists and audiologists and that periodically, perhaps every five years, every speech therapist and audiologist in Ontario be required to present to the Health Disciplines Regulation Board a certificate from an accredited school of speech therapy or audiology in Ontario stating that he has maintained a satisfactory level of competence in the practice of speech therapy or audiology.
- 239 That the accredited schools of speech therapy and audiology in Ontario develop the standards and programs which would be required for such certification and that the Ontario Council of Graduate Studies see that proper accrediting arrangements are made for accrediting schools of speech therapy and audiology.
- 240 That speech therapists and audiologists be certified by the Health Disciplines Regulation Board through Divisions of the Board for speech therapy and audiology.
- 241 That the Health Disciplines Regulation Board accept for certification speech therapists and audiologists who have received their education in speech therapy or audiology outside Ontario, but whose education is equivalent to that given in Ontario.

- 242 That speech and hearing services should be provided throughout the province, preferably in conjunction with other health services, in clinics, group practices, or hospital outpatient departments where feasible.
- 243 That essential health services provided by speech therapists and audiologists be included under publicly financed health insurance plans, but that only speech therapists and audiologists who are certified by the Health Disciplines Regulation Board be eligible for such payment. Payment by the health insurance authority should be made only if, before treatment by the speech therapist or diagnostic evaluation by the audiologist, the patient has been referred to a qualified physician for a physical examination to ensure there are no other attributing organic problems requiring medical treatment by a physician,
- 244 That legislation be enacted to require that no hearing aid may be fitted or sold for a child under the age of twelve without a written prescription from a qualified physician, and that there be a mandatory referral of the child to the physician after the hearing aid is fitted.
- 245 That the regulation of hearing aid dispensers come within the purview of government agencies concerned with consumer protection legislation rather than health care legislation.

Dietitians and Medical Record Personnel

- 246 That the Department of Education be responsible for the education of medical record personnel and that educational programs for medical record personnel be transferred to Colleges of Applied Arts and Technology where feasible. An Educational Advisory Committee for medical record personnel should be established to advise the Minister of Education on proposed educational programs for medical record personnel, and on the length and content of such programs, and to accredit all educational programs for medical record personnel.
- That medical record personnel be certified by the Health Disciplines Regulation Board, through a Division for Medical Record Personnel, and that various levels of certification be developed as required to differentiate between librarians, technicians and clerks.

Health Technologists

248 That the Department of Health and the Ontario Council of Health keep a close watch on the requirements for all types of health technologists and undertake long-range planning in order to anticipate the needs in Ontario for such personnel. At the same time the Council should undertake continuing research to determine the need and role for new kinds of health technologists and to make provision for the education and regulation of such groups as they develop.

- That the Research and Planning Branch of the Department of Health in conjunction with the Research Unit of the Ontario Hospital Services Commission undertake studies on the utilization and role of health technologists in both hospital and private settings. Such studies should include a review of working conditions for these groups and attempts should be made to encourage employers to improve working conditions in order to attract greater numbers into these occupations.
- 250 That efforts be made by the Department of Health and the voluntary associations to attract into employment some of the qualified technologists not presently employed; and that employers review their employment needs in order that, where possible, part-time employment opportunities may be developed for health technologists.
- That a continuous review of salaries of health technologists be made by the Department of Health and the Ontario Council of Health, and that where unattractive salaries have been the main factor in depressing the numbers entering these occupations, appropriate steps be taken to increase salary levels.
- 252 That control of education programs for health technologists be transferred to the Department of Education; and that a Health Technology Education Advisory Committee be established to advise the Minister of Education on proposed educational programs for health technologists and the length and content of such programs.
- 253 That new programs in health technology should be conducted in Colleges of Applied Arts and Technology and that existing programs in hospitals and regional schools be transferred to such colleges as feasible.
- 254 That training bursaries or such general grants as are necessary to attract appropriate numbers into the training programs for health technology should be made available by the Province of Ontario without reference to the type of institution in which training is undertaken.
- That the teaching function of the Toronto Institute for Training in Technological Aspects of Medicine be incorporated into a health sciences division of a College of Applied Arts and Technology or Ryerson Institute, and that Colleges of Applied Arts and Technology develop health science divisions to coordinate the training of workers in the health sciences, including health technologists.
- That accreditation of education programs for health technologists be undertaken by the Health Technology Education Advisory Committee.
- 257 That the Health Technology Education Advisory Committee keep under constant review the entrance requirements and length of courses required for radiological technicians and medical laboratory technologists.

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- 258 That educational programs for health technologists such as the one for medical laboratory technologists offered at the Algonquin College of Applied Arts and Technology be encouraged and that the arrangement of the didactic and practical portions of programs be undertaken in a variety of ways. As the Committee has reservations regarding the necessity of lengthy internship periods for health technologists this aspect of the training should be reviewed closely by the Health Technology Education Advisory Committee.
- 259 That the Department of Education ensure that appropriate training programs are established for electroencephalograph technicians, medical electronics technicians and inhalation therapy technicians.
- 260 That opportunities for health technologists to undertake advanced training be made available at educational institutions teaching health technology, and that the academic portion of such programs be under the control of the Department of Education.
- 261 That refresher courses be sponsored for health technologists in order to attract into employment some of the qualified technologists not presently employed. Such courses should be made available through the educational institutes training health technologists in cooperation with affiliated hospitals.
- 262 That hospitals and others concerned with the need for health technologists make information available to students about job opportunities and the kind of skills required for careers in health technology. This should be done both in high schools and in universities.
- 263 That health technologists be certified by the Health Disciplines Regulation Board through a Health Technologists Division.
- 264 That the Health Disciplines Regulation Board attempt to develop standards of certification which will be recognized by other provinces in Canada and promote nation-wide recognition of standards to facilitate the mobility of health technologists.
- 265 That the Health Disciplines Regulation Board be empowered to certify health technologists trained outside Ontario who have received training equivalent to that required in Ontario, and that the Board have power to determine such equivalents.
- 266 That those technologists trained within Ontario at institutions accredited by the Health Technology Education Advisory Committee, upon receiving the appropriate diploma, be certified by the Health Disciplines Regulation Board without further examination.
- 267 That a health technologist who has not been employed in his field for a period of three years and has not maintained his certification should be required to take a refresher course at an appropriate educational institution before being eligible for recertification.

Medical Laboratories, X-ray Laboratories, and Clinical Chemists

- That legislation be enacted for the licensing of private clinical laboratories and that such legislation permit the supervision of such laboratories to be under the control of either qualified physicians or persons with an adequate background in scientific fields, as applicable. The Health Facilities Board should be responsible for the administration of this licensing program, as well as for the establishment of standards for clinical laboratories, the determination of qualifications for personnel working in such laboratories, the inspection of clinical laboratories, and the development of quality control programs and programs to improve techniques and quality in the laboratory field.
- 269 That insurance payments from the Ontario Health Services Insurance Plan for laboratory tests should not be restricted to those laboratories where the tests are conducted under the supervision of a physician, but should be available to any licensed laboratory.
- 270 That laboratories and x-ray facilities in hospitals should be covered by the regulations governing clinical laboratories and x-ray laboratories, and that the Ontario Hospital Services Commission may designate the Health Facilities Board to undertake inspection of such facilities in hospitals.
- 271 That fee schedules for tests performed by clinical laboratories should be a matter of prior negotiation by the clinical laboratories and the Minister of Health who would be advised by the proposed Fee Negotiations Advisory Committee.
- That licensed osteopaths be permitted to send specimens to licensed laboratories for tests which are relevant to their practice, and that the laboratories be required to report the results to them.
- 273 That the regulations governing the installation and use of x-ray sources should be administered by the Health Facilities Board.

Osteopaths

- That manipulative services which osteopaths presently perform, and which would be covered by OHSIP if performed by a physician or physiotherapist, should be covered by OHSIP if provided by an osteopath.
- 275 That the present Drugless Practitioners Act be repealed and new legislation enacted to regulate the practice of osteopathy, and to provide for the licensing of osteopaths under the jurisdiction of the Health Disciplines Regulation Board.
- That the scope of practice for osteopaths licensed by the Health Disciplines Regulation Board should not be extended beyond that which is presently permitted osteopaths under the Drugless Practitioners Act.

277 That osteopaths licensed by the Health Disciplines Regulation Board continue to be prohibited by law from using the title "Doctor", with or without a qualification.

Chiropractors

- 278 That, in order to preserve chiropractic technique, and to bring about cooperation between physicians and chiropractors for the benefit of the public, new arrangements be made for chiropractic education, bringing it within the publicly supported and administered system of education for the health disciplines, locating it in an appropriate College of Applied Arts and Technology or other similar post-secondary educational institution where chiropractic students may receive instruction from physicians and other scientists as well as from chiropractors.
- 279 That the educational program for chiropractors be so designed as to ensure first, that chiropractic students be made aware of the limitations of manipulative therapy, and second, that chiropractic students not be misled, or be likely to mislead their patients, as to their ability to diagnose.
- 280 That chiropractors continue to be restricted to the scope of practice allowed by the existing Drugless Practitioners Act.
- 281 That the public continue to be free to consult chiropractors directly and without medical referral, but that before chiropractic treatment is commenced a differential diagnosis by a qualified physician be required to ensure that manipulative therapy is not contra-indicated; however, a physician should not in any way prevent a patient from resorting to chiropractic treatment if the patient so desires.
- That manipulative services which chiropractors presently perform and which if performed by another health practitioner would be covered by OHSIP, be covered by OHSIP if provided by a chiropractor, but that it be a condition of such insurance payment that the patient produce evidence that a medical diagnosis has been made.
- 283 That the Ontario Council of Health and the Department of Health undertake a continuing surveillance of relations between medicine and chiropractic to ensure that physicians do not interfere with the right of patients to seek chiropractic treatment.
- 284 That it be declared to be contrary to public policy for medical bodies to attempt, either officially or unofficially, to prevent members of the medical profession from teaching students of other health disciplines including chiropractic and that the medical profession reassess its attitude towards chiropractic, to ensure that physicians do not discriminate against chiropractors and patients of chiropractors, or inhibit physicians from teaching chiropractic students.
- 285 That faculties of medicine in Ontario encourage the teaching of manipulative techniques to medical students.

- 286 That hospitals be required to release x-ray films to chiropractors upon the request of the patient.
- 287 That the fee schedule published by the Ontario Chiropractic Association be a matter of prior negotiation by the Association and the Minister of Health, who would be advised by the proposed Fee Negotiations Advisory Committee.
- 288 That chiropractors continue to be prohibited by law from using the title "Doctor", with or without a qualification.
- 289 That the present Drugless Practitioners Act be repealed and new legislation enacted to regulate the practice of chiropractic and to license chiropractors under the jurisdiction of the Health Disciplines Regulation Board through a Division for chiropractors.
- 290 That those chiropractors choosing to be licensed as chiropractors under the Health Disciplines Regulation Board by virtue of being registered as chiropractors under the Drugless Practitioners Act be prohibited from practising as any other category of practitioner under an authority previously issued by any other board under the Drugless Practitioners Act.

Naturopaths and Natural Hygienists

291 That the present legislation under the Drugless Practitioners Act regulating drugless therapists and naturopaths be repealed and that no legislation to regulate these groups be introduced. Instead, the Committee recommends that an exemption be included under the Medical Act stating that the Act does not apply to those persons who as of the date of enactment are practising as drugless therapists or naturopaths in the province of Ontario and who are registered under the classification of drugless therapists under the Drugless Practitioners Act, provided that they continue to practise within the scope of practice formerly permitted to drugless therapists under the Drugless Practitioners Act including treatment by manipulation, adjustment, manual or electrical therapy, or corrective nutrition. The exempting amendment should also provide that persons wishing to continue to practise under this provision must signify their intent to do so to the Minister of Health, and that they would be prohibited from practising under any other classification of the healing arts.

Sectarian Healers and Hypnotherapy

292 That the Hypnosis Act be amended to establish the category of hypnosis technician, and that all persons, with the exception of registered physicians, dentists and clinical psychologists, but including those who presently practise hypnosis by virtue of Regulation 353/61 under the Hypnosis Act and who wish to use hypnosis, be required to obtain a licence as a hypnosis technician, from the Health Disciplines Regulation Board, and that licensed

hypnosis technicians practise only on referral from physicians, dentists and clinical psychologists. The standards for licensing of hypnosis technicians should be established by the Board through a Division for hypnosis technicians, but the level of educational requirements for licensure should be similar to those required of technical personnel rather than those demanded of professional personnel.

The Administrative and Policy-making Structure

- 293 That the Department of Health be relieved of direct administration of health programs insofar as feasible, and that policy-making, planning and coordination be its main function, including reviewing and setting of hospital budgets, deciding on coverage under publicly financed health insurance, deciding on standards of services provided under insurance, and deciding upon manpower needs and goals.
- 294 That a substantially enlarged Research and Planning Branch be included in this Department to undertake research and the analysis of background data and information necessary for policy formulation.
- 295 That the Ontario Council of Health be reconstituted and that it continue to make recommendations directly to the Minister of Health. The membership of this Council should be similar to that of the existing Council of Health, except that (a) the Chairman should not be a member of the Department of Health; (b) the representative of the Department of Health on the Council should be the director of the Research and Planning Branch; and (c) the Chairman, at least, should be a full-time member of the Council.
- 296 That the Ontario Council of Health should publish an Annual Report dealing with the current and forward view of the availability of health services and the working of the health care system, generally, as well as such research studies and other documents as it deems appropriate.
- 297 That adequate and independent funds be made available to the Ontario Council of Health by the Government of Ontario.
- 298 That the Ontario Council of Health should have its own secretariat and research staff, and have authority to commission external research projects.
- 299 That there should be a Coordinating Committee of the Cabinet on Health Education, composed of the Ministers of Health, University Affairs and Education to review and coordinate educational policies which directly affect the Department of Health and, in particular, to review the impact of educational procedures on manpower supply, and of educational facilities in which a substantial service element is involved.
- 300 That support for health sciences education in the universities remain the responsibility of the Department of University Affairs, and that the Department of Education be responsible for the educational programs for nearly all other health disciplines.

- That individual committees, advisory to the Minister of Education, be established for each of the health disciplines educated in institutions under the jurisdiction of the Department of Education, and that each committee be composed of members of the occupation whose educational program is directly concerned, as well as members of related occupations where applicable, and other members who are capable of contributing to the relevant committee; that the committees' functions should be to advise on matters such as curricula, length of program, and training standards of each health discipline. Each appointee to these educational advisory committees should be selected on personal merit.
- That a Fee Negotiations Advisory Committee be established by the Ontario government to advise the Minister of Health on the negotiation of professional fee schedules for groups in the health system who receive their income primarily from fee for service, whether or not the services of a specific profession are covered by publicly financed health insurance programs. The Fee Negotiations Advisory Committee should not be composed of professional health personnel. The negotiations themselves should be the responsibility of the Minister of Health and his senior officials.
- 303 That the present Ontario Hospital Insurance Commission, Health Insurance Registration Board, and Ontario Health Services Insurance Division be merged under an Ontario Health Services Insurance Commission, reporting to the Minister of Health, which would administer hospital and medical insurance programs. This Commission should be an administrative body only. Policy, including financial policy, review of hospital budgets, approval of construction of public hospitals, convalescent units, rehabilitation units, determination of fee schedules and means of payment, policy on drugs, and the like, should be established through the Department of Health.
- That an Ontario Mental Hospitals Board be established for the supervision and administration of Ontario Hospitals and allied mental health services operated presently by the Department of Health. Such a Board should include lay members; if feasible further boards should be established on a regional or local basis as required. The Department of Health must, however, remain responsible for policy matters concerned with the provision of mental health services generally.
- 305 That a Health Facilities Board under the aegis of the Department of Health, be established to administer the legislation and the regulations concerning medical laboratories, radiological facilities, dental laboratories, the sale of drugs and poisons, and the operation of pharmacies.
- 306 That care of mentally retarded children, whose needs are not health care, be transferred from the Department of Health to the Department of Education.

307 That after study of local health care needs by each of the Regional Health Councils, the Department of Health should establish acceptable minimal standards for the provision of health care, and take appropriate steps for the implementation of these standards such as providing incentives to induce personnel and resources to locate in underserviced areas, and establishing satellite health clinics and demonstration projects involving both medical and paramedical personnel.

Regulation of the Healing Arts

- 308 That the Medical Act be amended to state clearly that an act which if done with regularity, would amount to the practice of medicine, surgery or midwifery, should be deemed to be the practice of medicine, surgery or midwifery notwithstanding that it was done, or was shown to have been done, on an isolated occasion only.
- 309 That the obligation to police the prohibition against such practice by persons not registered under the Medical Act ought to be removed from the College of Physicians and Surgeons of Ontario and transferred to the Crown Attorney for the county in which the offence is alleged to have been committed; similar changes should be made in respect of prosecutions for unauthorized practice under the Dentistry Act, the Optometry Act and the Pharmacy Act.
- 310 That the fact that the practice was for hire, gain or hope of reward should be eliminated as a constituent element of the offence created by section 51 of the Medical Act.
- 311 That the prohibition against the practice of medicine by any person not registered under the Medical Act should not extend to, and it should be expressly provided that it does not extend to, family care of the sick or family health care, persons performing acts under the authority of other statutes and persons engaging in acts of psychotherapy.
- That, for the purpose of determining whether a matter affects only the governing body of the profession and thus is properly the subject of the rule-making power of that body or affects the public and is thus properly the subject of the regulation-making power, the decision as to the nature of the rule or regulation not be left exclusively to the determination of the governing body of the profession but be reviewed by the Minister of Health with the assistance of his legal advisers.
- 313 That responsibility be given to the Minister of Justice and Attorney General to review, and where necessary rewrite, the legislation concerning the healing arts to make it conform with government health policy, and that the Department of Health maintain a constant supervision over such legislation and the behaviour of the professions and occupational groups to ensure the implementation of provincial health policy.

- That as a general rule the pressure created by occupational groups in the health field not now enjoying the status of self-government to be given self-regulatory powers ought to be resisted.
- 315 That those professions and occupational groups which are now or are to be self-regulating ought to be required to include on their governing bodies lay members to be appointed by the government in sufficient numbers to ensure effective rather than nominal representation of the public. Lay appointees should not, however, constitute the majority of members on such bodies.
- 316 That in making appointments of lay members to the governing bodies of self-regulating professions as recommended in Recommendation 315 it should be borne in mind that the quality of the persons appointed is perhaps more important than the number, and conscious efforts should be exerted to choose persons who are endowed with the ability and desire to participate actively in the business of the bodies to which they are appointed.
- 317 That control by the licensing bodies of the professions over the admission requirements of the publicly supported professional schools and over their curricula should be terminated. The concern of the regulatory bodies of the practising profession should be confined to the regulation of the practising profession and to an assessment of the competence of applicants for licensure who have been trained elsewhere than in Canadian professional schools.
- That in the regulation of the health professions and occupational groups the principle be recognized that a clear distinction must be made between the functions of the licensing or qualifying agency, the trustee for the public and the voluntary professional organization, the spokesmen for the members of the profession or occupational group.
- 319 That no licensing or qualifying body be permitted to fix an amount for membership dues or fees at a figure which will enable it to pay a per capita sum to a voluntary professional association and thus, in effect, require that, as a condition of holding the qualification to practise, the practitioner be a member of, or at least support, the voluntary association.
- That in the case of the non-university prepared health disciplines no voluntary association should be accorded the right to license or certify its members as fit to practise.
- That compulsory participation in programs to ensure continuing competence, designed to be as flexible as possible and to relate to the particular area of practice engaged in by the practitioner, be made a condition of relicensing for all professions and occupations in the health field generally, but at least for the senior professions.
- 322 That the responsibility for designing and carrying out the program of continuing education and for certifying to the licensing or regulatory body of the

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- profession that the individual practitioner has complied with the requirement devised for him or his group of practitioners, be conferred on the respective professional educational institutions.
- 323 That to ensure that programs of continuing education not be undertaken at the sacrifice or prejudice of the quality of undergraduate and graduate instruction, the staff, faculty and budgets of the educational institutions be increased to make them commensurate with the magnitude of their highly essential responsibilities, both old and new.
- 324 That a Health Disciplines Regulation Board be created for the regulation of those disciplines for whom public regulation has been recommended in Volume 2 of this Report.
- 325 That the Health Disciplines Regulation Board be an administrative tribunal with quasi-judicial powers occupying a relationship with the Department of Health that is similar to the relationship of the Ontario Labour Relations Board and the Department of Labour or of the Ontario Municipal Board and the Department of Municipal Affairs.
- 326 That the Board be small in size consisting of perhaps no more than five appointed members all of whom should be full-time members and one of whom should be chairman.
- 327 That the Board should have a chief administrative officer and a secretariat of sufficient size and quality to carry out all its functions including the functions of each of its Divisions.
- 328 That for each discipline regulated by the Board there should be a Division of the Board containing a bare majority of practitioners of the discipline regulated by that Division, the remaining members being non-members of that discipline.
- 329 That it be the function of each Division of the Board to be responsible for the decision-making involved in the licensing, certifying, or registering, as the case may be, and of the disciplining of the practitioners in its respective discipline.
- 330 That the Divisions of the Board be responsible for the content of the necessary regulations and rules for submission to the Board, which, if satisfied with such content, would be responsible for their submission to the Lieutenant Governor in Council.
- 331 That provision be made for appeals from the decision of a Division, by any person affected, to the Board, which when acting as an appellate tribunal would be augmented by members of the discipline concerned who are not, however, to form a majority and who may not be members of the Division appealed from. An appeal may lie to the Court, in the manner suggested by the McRuer Report, from the decision of the Board.

- That the office or position of Health Commissioner be created to investigate complaints in the health sector and with the power to report the results of his investigations.
- 333 That the Health Commissioner be a highly competent person, preferably with legal training, though not necessarily a member of the Ontario bar, with security of tenure, and a sufficient budget and staff to enable him to discharge his responsibilities efficiently.
- 334 That no prosecution for any alleged violation of section 51 of the Medical Act be undertaken unless the consent in writing of the Minister of Health has first been secured.

The Role of Hospitals in the Provision of Health Care

- 335 That when, as described in Chapter 24, Regional Health Councils are established in Ontario, the coordination of hospital facilities be viewed as part of the larger problem of regional health planning.
- 336 That substantial use be made of pilot programs and evidence available from other jurisdictions regarding improved utilization of health facilities. Continuous study of the results of such programs should be undertaken by the appropriate public authorities, including the Department of Health and the Ontario Council of Health and positive steps taken to implement programs based on the findings of these studies.
- 337 That the Department of Health promote studies to investigate methods of regional rationalization of the hospital system through careful study of bed needs and the range of services offered. Regional health councils should participate in the planning for this rationalization.
- 338 That hospital planning and rationalization should provide for increased utilization of various types of paramedical personnel. Since a large part of the work of the various types of paramedical specialists discussed in Volume 2 is done in the hospital, their efficient utilization requires a rationalization of many hospital procedures.
- 339 That the government include progressive patient care among the areas of health service to be investigated through the financing of pilot projects, and review of experience elsewhere. Financial support should be extended to experimental programs aimed at developing improved patient care through home care programs, convalescent homes, and nursing homes.
- That a greater voice in hospital affairs be given to non-medical hospital personnel, including dentists, nurses, psychologists, physiotherapists, medical social workers, and to internes and residents, and that this voice should be made effective through some appropriate means such as representation of non-medical personnel on an interdisciplinary advisory board in each hospital.

Patterns of Mental Health Care

- 341 That the Government of Ontario should place a high priority on research in the mental health field when planning for the allocation of health funds, not only that more effective methods of treatment may be developed, but that potential mental health professionals may be attracted to enter and stay in the field.
- 342 That a study be undertaken by the Province of Ontario to examine the possibility of the immediate development of appropriate facilities for the retraining, after care and rehabilitation of patients discharged from psychiatric hospitals.
- That in the field of mental health therapeutic services be insured by publicly financed health insurance plans whether provided by a physician or by non-medical personnel recognized as being qualified to provide the services.

Some Patterns of Medical Practice: Group Practice and Health Centres

- 344 That medical faculties in Ontario include in their curriculum and during the internship period opportunities for students to work with different kinds of practice outside hospitals, including group practice and that medical schools should include information about forms and problems of practice as a part of the curriculum.
- 345 That the Department of Health and the Ontario Council of Health undertake, promote, and finance research into group practice including studies of comparative use of paramedical personnel, comparative incomes and expenses of physicians in groups and other practices, the relationship of practice in groups to the cost of hospitalization, and many other such matters.
- 346 That the Department of Health see that arrangements for payment for services under publicly financed health insurance plans are such as not to hinder the development of group practice of various organizational structures and using various types of auxiliary personnel; and that the Department of Health take steps on its own or in collaboration with regulatory bodies to see that legislation, formal regulations, and other features of the regulatory apparatus, do not hinder appropriate assignment of functions to auxiliary personnel.
- 347 That the Department of Health provide inducements, where appropriate, for the development of group and related kinds of practice, such inducements to take the form of financial assistance for the establishment of group or health centre facilities in remote or underserviced areas and, if necessary, further subsidization of these practices; financial assistance for research related to uses of paramedical personnel; and financial help to pilot projects in which new modes of group or combined practice are being tried.

The General Physician

- 348 That medical personnel should provide the initial contact between the patient and the health care system, and that steps should be taken to ensure that there are an adequate number of such initial contact physicians available to provide this service.
- 349 That the Government of Ontario promote the adoption and extension of educational programs that make personal or family practice a separate (specialist) category in the undergraduate program and provide recognized postgraduate specialty training in this field.
- 350 That the College of Physicians and Surgeons of Ontario take appropriate action to recognize formally the new specialty of personal or family practice.
- 351 That qualifications in the specialty of personal or family practice be recognized in the regulations of hospital medical advisory committees as warranting status and privileges comparable to those enjoyed by other specialists, and that, if at all possible, some hospital association be available to all practitioners.
- 352 That the Government of Ontario take the initiative in negotiating changes in the fee schedule which will provide financial inducements to prospective entrants to personal and family practice, and make the practice of personal and family medicine, especially as a specialty, more remunerative and attractive than it now is.
- 353 That the Government of Ontario take such steps as are available to it to promote an improvement in working conditions for generalists. Suggestions for such measures would include tangible action to promote group, clinical and other forms of combined practice, to facilitate the association with, and, to the greatest degree practicable and desirable, use of health facilities, to help with experimental forms of health services delivery.
- 354 That the development of a higher grade medical worker such as a nurse with postgraduate training, to assist the physician in many of the routine tasks now being performed by him be undertaken and that, at least on a pilot project basis, a formal training program for such workers be established.

Chapter 3 History of Health Legislation

The provision of health care in Ontario traditionally has been regarded as a service to be provided, for the most part, by private practitioners. Until relatively recently, the responsibility of the provincial government (and of the junior governments operating under it) was confined to protecting the public from incompetent or unscrupulous private practitioners and to providing certain public health services which, because they benefited the community as a whole, could not be provided on a fee-for-service basis by private practitioners.

This chapter will survey the evolution of both these types of public policies from the 1790's to the late 1960's. The principal features of the Ontario government's role in the health field were established in legislation passed in the years between Confederation and the First World War. It is convenient, therefore, to divide our discussion in this chapter into two parts: the first deals with this early period; the second, with the period since World War I during which the established principles were extended and elaborated. We shall examine the legislation in each of these periods which affected private practitioners, public health services, and hospitals.

Health Legislation to 1914

In 1791, when Upper Canada attained separate colonial status, no legislation regarding the health of its inhabitants survived. In fact, there were few actual facilities for health care in the province. The population was too sparse to support many trained medical men, and even in the more thickly settled areas around Niagara and Kingston, the doctors were in the service of the armed forces. The only hospital in the colony was a military hospital at Kingston.

As the population of Upper Canada expanded, a variety of medical practitioners was attracted to the area; some were itinerants, others became permanent settlers. The more highly qualified of the latter sought to have the practices of medicine, dentistry and pharmacy regulated to ensure the competence and ethics of practitioners in these fields. The only source of such authority was the colonial government, and it was duly petitioned to enact legislation for these purposes. But it was not until the years immediately following Confederation that what was to become the basic pattern for such legislation was established and the statutes providing for the professional colleges of regulation passed.

In the field of public health, the growth of population during the nineteenth century made it necessary for the government to take action to control the spread

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of contagious diseases. Public activity in this field was sporadic and unplanned until the later decades of the century, when a permanent public health organization was established

Public provision of hospital facilities and services also was provoked by events rather than by intention. The need to accommodate the mentally ill prompted the government to establish a public asylum as an alternative to the prisons which had served this purpose in the early part of the century. In addition the usefulness of privately operated hospitals for the care of the indigent sick prompted the government to make occasional grants to assist in operating and even in constructing such institutions. These arrangements remained rather casual until late in the nineteenth century; but by 1914 they were accepted as part of the routine functions of government, even if they were not considered among the most important of these functions.

Legislation Affecting Private Practitioners

Physicians

Although there were few trained doctors in Upper Canada at the end of the eighteenth century, during this period attempts were made to establish certain controls over the medical profession. At the first meeting of the Assembly of Upper Canada, a Special Committee was appointed to enquire into this matter, and in view of the prevailing conditions it recommended that no such controls be imposed.1 This proved to be good advice; for an Act passed in 1795 requiring that doctors be licensed² was later repealed, on the grounds that it was unenforceable.3 A similar statute was passed in 1815,4 but it proved to be administratively impracticable and was replaced by a new Act in 1818.5

The Act of 1818 provided that no one should practise medicine without a licence. Candidates who wished to obtain a licence were to appear before a Board of Examiners of five qualified men appointed by the Governor, to be examined on their medical knowledge. If the Board were satisfied, it would issue a certificate of competence. The applicant then might obtain a licence issued by the Governor, provided that he were satisfied as to the applicant's moral character.

Several groups were exempted from the provisions of the Act, however, and these included most practitioners who had any training or experience. Military doctors did not need a licence to practise, nor did anyone who had been trained at a university within His Majesty's Dominions or who had been in practice in Ontario since 1812. Another exemption was made in favour of female midwives. In 1827 the Act was amended to provide that all except the last must be licensed;

¹Ontario Archives, September 24, 1792.

²(1795) 35 Geo. III, c. 1 (Upper Canada). ³(1806) 46 Geo. III, c. 2 (Upper Canada).

⁴(1815) 55 Geo. III, c. 10 (Upper Canada). ⁵(1818) 59 Geo. III, c. 13 (Upper Canada).

but they still could obtain a licence on proof of any of these qualifications, without undergoing examination by the Board.⁶ Aside from all these exceptions, the examinations set by the Board governed the standard of medical training in the colony.

Another aspect of medical practice in the mid-nineteenth century was the emergence of groups of practitioners who practised according to theories unacceptable to the bulk of the profession. Two of these groups, the homeopaths and the eclectics, obtained governing statutes similar to the Medical Act.⁷ The two Acts were identical, each providing for a Board of five members appointed by the Governor to examine candidates for practice. Both statutes recognized the growing importance of academic education, stating that applicants for examination must show they had spent four years in medical training, including two years at a university.

Further recognition of the value to physicians of academic training was embodied in legislation in 1865 which established a General Council of Medical Education and Registration for Upper Canada. This statute⁸ sought to provide a mechanism through which the medical profession itself might control the education of practitioners. The Council, which was composed of representatives elected from among the practitioners and appointed from the medical schools, was to set the curriculum of the schools and could inspect them to make sure it was being followed. Licences would be granted only to medical graduates and to those already in practice.

The Act was considered unsatisfactory, since under it a licence was granted automatically upon graduation from an approved school. The profession felt that the right to practise should depend upon the results of standard examinations administered by the Council. To provide for such examinations the Act of 1869 was introduced.⁹ During its passage through the Legislature, however, several other provisions were grafted onto it.

The most important of these was the creation of the College of Physicians and Surgeons of Ontario, which united the orthodox profession with the homeopathic and eclectic branches of medicine. Like the General Council set up in 1865, this College was to be governed by a Council made up of twelve territorially elected practitioners and representatives of the university; in addition, the homeopaths and eclectics were given the right to elect five representatives each.

The main function of the governing Council was to issue licences to those who had completed the required curriculum and passed its licensing examination. The College retained the power to set the curriculum, including matriculation standards,

^{6(1827) 8} Geo. IV, c. 63 (Upper Canada).

^{7(1859) 22} Vic., c. 47 (Canada). An Act respecting Homeopathy.

^{(1861) 24} Vic., c. 110 (Canada). An Act respecting Eclectic System of Medicine.

^{8(1865) 29} Vic., c. 34 (Canada).

⁹S.O. 1868-69, c. 45.

but could no longer inspect the schools to ensure its standards were being followed. The licensing examinations were to be set and administered by a Board of Examiners appointed by the Council.

The administrative device used by most Colleges that issue licences is the Register. Entry in this book constitutes the licence. Generally it is also provided that a copy of the entry certified by the Registrar will constitute prima facie evidence of licence in court.

The Ontario Medical Register was established under the 1865 Act and was maintained by the College after 1869. Initially all those who were entitled to practise under any prior Act could be registered, and in 1869 this ruling was extended to include those who had been licensed by the Homeopathic and Eclectic Boards. Also in 1869 a "grandfather clause" was added which provided that any person who had actually been practising medicine in Ontario since 1850, whether or not he was entitled to do so, could be registered. All others who wished to register were required to pass the Council's examination after completing the prescribed curriculum. The Act also provided that a practitioner's licence could be revoked if it were shown that the holder had obtained it by fraud or that he had been convicted of a felony.

The principal difficulties with this legislation arose because some of the groups involved felt that they were discriminated against by the majority. The disaffected included not only the homeopaths and other "unorthodox" practitioners, but also many older physicians who refused to register on the grounds that their original licence gave them a vested right to practise which could not be taken away.

In 1874 an Act was passed which attempted to solve these problems.¹⁰ Homeopathic students were required to train under a registered homeopathic practitioner, but they could fulfil their academic requirements by going to school in the United States. In addition they were excused from writing certain licensing examinations which were replaced by others more suited to their theories. Although these provisions also applied to eclectic students, there had been no such applicants since the inception of the College, and it was agreed among all groups that eclectic representation on the Council should end.

The Act also made an attempt to force doctors to register by providing that all those who were entitled to do so, but did not within the next six months, would then be subject to prosecution like any other unlicensed practitioner. Finally it provided that the Council might assess an annual fee of one dollar against each registrant.

Some ill-feeling existed on the part of the elected representatives against the appointees of the medical schools. They felt that as a matter of principle the elected men should be the majority on the Council. Moreover, they argued, too many schools were given representative rights on the grounds that they were

¹⁰S.O. 1874, c. 30.

entitled to grant medical degrees, while they did not in fact maintain a medical school. As a result of these objections, an Act was passed in 1887 which limited academic representation to those schools which actually offered a medical course. The main purpose of this new Act, however, was to authorize the Council to discipline those of its members who had not displayed the integrity expected of a professional man. It provided that where the Council found a practitioner guilty of "infamous or disgraceful conduct", it might cancel his licence. Before this judgment could be made, the offender was entitled to a hearing by a new committee of the Council called the Discipline Committee. The hearing was to be quite formal; both sides were entitled to counsel and to adduce evidence, which was to be given under oath. The Committee would make findings of fact and report them to the Council, and the Council then would decide whether or not erasure was warranted. The Act also introduced a six-month limitation period for malpractice actions against doctors.

The ability of the College to carry out its delegated functions was impaired by financial difficulties during the last decade of the nineteenth century. To mitigate the problem, an Act was passed in 1891 which provided that those who were in one year's arrears in paying their annual fees could be erased from the Register. This measure aroused the ire of a large group of doctors who had objected to the necessity of registration in the first place, and who were also against the representation given to schools on the Council. These men formed the Medical Defence Association and immediately began to present Bills to the Legislature advancing their views. Finally their objections resulted in the passage of an Act in 1893. This Act provided for an increase of five in the territorial representatives, thus giving them a clear majority over the school-men and homeopaths. The 1891 provision regarding the annual fee was to be held in abeyance until ruled on by the next Council, and even then only elected representatives could vote on its institution.

Another difficulty confronting the College about the turn of the century was the lack of a formal definition of the practice of medicine. This inhibited the College's efforts to police those not qualified to practise, for several cases arose which turned on this definition. It became necessary to show that the accused had "practised" more than once and that in the course of this practice he had prescribed medicine. By the early 1900's, with the emergence of "cults" such as osteopaths and chiropractors, who did not use drugs, the College felt it was an impossible task to ensure that only properly qualified persons were giving medical care. The remedy, they felt, lay in a statutory definition of "practice of medicine", and representations to this effect were made to the government in 1905. Although it refused to enact such a definition, the government decided to refer the question of what constituted practice to the Ontario Court of Appeal. The judges felt it

¹¹S.O. 1887, c. 24.

¹²S.O. 1891, c. 26.

¹³S.O. 1893, c. 27.

¹⁴In re Ontario Medical Act, 13 O.L.R. 501.

was beyond their power to give a precise definition but indicated that generally the prescription of drugs was not an essential element of practice. The College, finding this answer too vague, continued to press for a statutory definition.

Dentists

The first dentists in Ontario were itinerant, but as the population grew many practitioners established a settled practice. Since these men were better trained, a cleavage soon developed between them and the itinerants, and in 1867 the former banded together as the Ontario Dental Association to seek legislation to control the practice of dentistry in Ontario. An Act was passed the following year, ¹⁵ creating the Royal College of Dental Surgeons of Ontario. The College was responsible for licensing dentists and enrolling them as members of the College. It was to be governed by a twelve-man Board of Directors elected from among the members, who would serve also as a Board of Examiners. A licence would be issued on passing the Board's examination after completing the educational requirements, which at that time consisted of a period of articles. A grandfather clause provided that those who had been in office practice for five years might be licensed without writing examination; those who had practised itinerantly for a similar period might be licensed after passing the examination but need not complete the articling period.

Unlike the practice of most professional colleges, the licence was evidenced by a certificate and no Register was kept, although a list of new licensees was submitted annually to the Provincial Secretary. The Act provided that a dentist's licence could be cancelled if he had been guilty of "acts detrimental to the profession", but no procedure was outlined for determination of guilt.

The 1868 legislation also gave the College authority in the area of dental education. Although the College was empowered to establish a dental school, it did not do so until 1875. This school operated only until 1887, when it was integrated into the University of Toronto under the authority of a statute of 1886. 16

The Act passed in 1886 also provided that the Board could make regulations concerning discipline, but it was not until the 1900's that the Board became active in this area. In 1908 a Discipline Committee was appointed to hear inquiries into misconduct, but its powers were limited and its legality questionable. It was largely to clear up this situation that a new Dental Act was passed in 1911.¹⁷ This Act provided that the Board could appoint a Discipline Committee to inquire into the conduct of a College member. As with cases before the College of Physicians and Surgeons of Ontario, the inquiry was to take the form of a hearing upon due notice with evidence given under oath. Where the Committee found that a

¹⁵S.O. 1868, c. 37.

¹⁶S.O. 1886, c. 30. A school was operated briefly by the College in 1869.

¹⁷S.O. 1911, c. 39.

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practitioner had been guilty of "infamous, disgraceful or improper conduct in a professional respect", it might either cancel his licence entirely or suspend it for a period of time.

Pharmacy

Unlike the physicians and the dentists, the pharmacists had some difficulty in obtaining legislation incorporating them into a college. This was due to the peculiar nature of their professional services, which were often masked by the retail functions of a drug store. The Legislature was reluctant to grant a monopoly to what they considered largely a group of merchants. On the other hand, the pharmacist dealt in many highly poisonous substances, and legislation had already been passed defining the manner in which these might be sold. In addition physicians especially were concerned that their prescriptions be compounded by competent men. Indeed, after 1866 it was suggested that the physicians seek legislation to control the practice of pharmacy.

It was in this atmosphere that the Canadian Pharmaceutical Association was formed to seek self-governing legislation. After unsuccessfully attempting to obtain federal legislation, the Society presented a Bill to the Ontario Legislature in 1869. ¹⁹ It was not passed, nor was a similar Bill that was presented at the next session. ²⁰ But finally in 1871²¹ an Act was passed creating the Ontario College of Pharmacy.

The College was to maintain a Register of all those entitled to practise pharmacy. Under the grandfather clause of the Act, anyone who was practising pharmacy on his own account or in partnership might be registered. In addition those who had served three years as an apprentice and one year as an assistant were entitled to a licence. Otherwise registration was dependent upon passing the College's licensing examination. Although all these persons were entitled to registration, it was only those men who actually owned or managed a pharmacy who were entitled to vote for the governing Council and liable to pay the annual fee.

Unlike the other professions where the licence was granted strictly to an individual, registration under the Pharmacy Act entitled both the pharmacist and his employees to fill prescriptions. Finally the Act incorporated the Sale of Poisons Act, governing the sale of scheduled substances.

The Act of 1871 was soon found to be deficient in several respects. It made no provision for establishment by the Council of educational requirements to be met by those wishing to write its examinations, nor did it allow the Council to enter into reciprocal agreement with licensing bodies outside Ontario. Legislation was sought on both these matters, and when it was refused, the Council took action on its own account. At its first meeting the Council decided to approach

^{18 (1859)} C.S.C., c. 98. An Act respecting the Sale of Strychnine and Other Poisons.
19 (1868-69) Second Session of the First Parliament of the Province of Ontario, Bill 135.
20 (1869) Third Session of the First Parliament of the Province of Ontario, Bill 11.
21S.O. 1870-71, c. 34.

the School of Practical Science at the University of Toronto about establishing courses for pharmaceutical students, and by 1878 a ten-week course was in operation. Soon it was decided that this was not sufficient, however, and in 1881 the Council decided to begin its own school. It was also decided at the first College meeting to recognize those holding licences from Great Britain, Quebec and Philadelphia as qualifying for registration; but this practice was later abandoned because of doubts about its legality.

The first amending Act was passed in 1884.²² This measure laid down the educational requirements for those writing the licensing examination. Although the College was already operating, the Act stated that applicants need show only High School Entrance and three years of apprenticeship. It was not until 1889 that attendance at the school for two years became compulsory.²³

Like the dentists, many pharmacists felt that their students would benefit from university affiliation. The first negotiations with the University of Toronto were held in 1887, but no agreement was reached until 1891 when the University began teaching some courses to the College's students.

By the turn of the century the College was faced with a major problem in policing unauthorized practitioners. Many unlicensed men had set up corporations to operate their pharmacies, hiding behind a board of directors. In 1906²⁴ an Act was passed that remedied this situation by providing that the majority of the board of directors of a company that operated a pharmacy must be registered pharmacists, and that one of them must act as manager. In addition all directors would be liable for an offence against the Pharmacy Act committed by any one of them.

The Pharmacy Act was re-enacted in 1911. There was but one noteworthy addition at this time: it was established that prescriptions could be filled only by a pharmacist or his apprentice, rather than by any employee in the pharmacy.²⁵

Nurses

The combination of the growing number of hospitals in Ontario and the increase in the respect accorded the nurse encouraged the establishment of hospital schools to train professional nurses. Graduates of these schools naturally felt themselves better qualified than their untrained sisters, and in 1904 they formed the Graduate Nurses Association, in part to seek legislation giving them professional status. In 1906 a Bill was presented to the Legislature²⁶ proposing the creation of a Council composed of doctors and trained nurses which would have the power to license those nurses who could be employed in hospitals. Although the principle of the measure received some support, it was not passed. A much lesser degree of recognition was given to the trained nurse with the passage of the Hospitals and

²²S.O. 1884, c. 22.

²³S.O. 1889, c. 25.

²⁴S.O. 1906, c. 25.

²⁵S.O. 1911, c. 40.

²⁶(1906) Second Session of the Eleventh Legislature of the Province of Ontario, Bill 106.

Charitable Institutions Act in 1912.²⁷ This Act provided that graduates of hospital training schools might register with the Provincial Secretary, and that they had the right to use the designation "Registered Nurse" or "R.N."; but this was a system of certification, rather than licensing, since it gave those registered no exclusive right to practise.

Public Health

Legislation governing the various health professions was sought by the professions themselves, whereas government action on other aspects of health care appears to have awaited an occasion when events compelled some action.

For example, the first measures concerning public health in Upper Canada were taken as a result of an outbreak of cholera in 1832. The following year an Act was passed²⁸ "to establish Boards of Health and to Guard against the Introduction of Malignant, Contagious and Infectious Diseases in this Province". It provided that the Governor with the consent of the Council might appoint three or more persons to act as health officers within a designated area, and that these officers might enter and examine any premises within their jurisdiction and order the removal of anything that might endanger the public health. In addition, the Act empowered the Governor in Council to make regulations concerning the arrival and departure of vessels and the landing of passengers therefrom for the purpose of protecting the public health. The Act was to remain in effect for one year, since it was designed to meet the existing emergency only; but it was renewed several times, and was made perpetual in 1839.²⁹ In 1835³⁰ the health officers were given the power to remove persons to shelters if their homes were judged in need of a thorough cleansing to prevent the outbreak or spread of disease.

Another cholera epidemic broke out in 1845 and led to an important change in the Public Health Act in 1849.³¹ The Governor might declare the Act to be in force in any part of the colony threatened by an epidemic, and appoint a central Board of Health, which could make regulations designed to prevent or mitigate epidemics. Boards were appointed under the Act in 1854 and 1865, both times as a result of cholera epidemics. In addition local boards of health were to be nominated by the Chief Municipal Officer (or, if he failed to do so, by the Governor), in each area affected by the proclamation of the Act. The local boards of health were required to enforce the orders of the central board, and the members of the local board were to be called health officers.

In 1873 an Act was passed which authorized, for the first time, continuous scrutiny of the public health.³² The council of each municipality was constituted a

²⁷S.O. 1912, c. 85, s. 14.

^{28(1833) 3} Wm. IV, c. 48 (Upper Canada).

²⁹2 Vic., c. 21 (Upper Canada).

⁸⁰⁵ Wm. IV, c. 10 (Upper Canada).

³¹¹² Vic., c. 8 (The Province of Canada).

³²S.O. 1873, c. 43.

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local board of health with powers to make on a continuing basis the inspections that theretofore could have been made only during proclaimed emergencies. These included the right to inspect premises and to order their cleansing or to remove anything that constituted a danger to public health. Further, the Lieutenant Governor in Council was given power to make regulations concerning the landing of passengers and cargo in the ports. Finally the old power to appoint a central Board which was to direct the activities of the local boards during an emergency remained.

By this time, the province had a large enough urban population to require safeguards to protect the public health. The system of local boards failed at this task largely because of the local councils' indifference to the problem.

In 1882³³ a provincial Board of Health was established to supervise public health within the province. The Board was to consist of seven members (four of whom must be doctors) and its primary function was to "take cognizance of life and health among the people of the Province". In this context, the Board could undertake studies, publish information, and give advice to the local board when requested. In addition it could assume the powers of the old central board in an emergency. Under the same statute, municipalities were authorized to build isolation hospitals for smallpox victims. The Board was to keep an adequate supply of vaccine on hand to distribute to these hospitals and to doctors for vaccination.

In 1884³⁴ a further step in the protection of the public health was taken with the reformation of the local boards. The boards were now to be appointed by the council and to function separately from it. In addition several municipalities could unite into a health district with a board composed of representatives of each community. The municipal council was empowered to appoint medical health officers and sanitary inspectors, who were to have the same general powers as a board member.

The duties of the local board remained substantially the same: to inspect premises and remove nuisances. In addition the appointed officers could inspect any food offered for sale, and destroy any that was unfit for human consumption. The Act also tried to ensure pure water supplies by providing that any municipal water works or sewage system must be approved by the provincial Board before being constructed.

Finally the Act put into effect new provisions designed to control the spread of infectious diseases. Persons suffering from such diseases could be removed to isolation hospitals, and both the householder and the attending doctor were obliged to report any occurrence of such illness.

During the next twenty years both the local and the provincial boards were given greater responsibilities in many areas. For example, the provincial Board was given power to regulate such diverse activities as the inspection of public

³³S.O. 1882. c. 29.

³⁴S.O. 1884, c. 38.

buildings³⁵ and the provision of ice supplies,³⁶ and local boards were to inspect many sources of food supply, such as abbatoirs and dairy farms,³⁷ as well as some classes of buildings such as lodging houses.³⁸

The provincial Board had further powers during epidemics. In 1886³⁹ it was empowered to take possession of any land or unoccupied building it might need for an isolation hospital, and also to appoint a medical health officer if the municipality refused to do so.

In 1912 all these strands were gathered up into a comprehensive new Public Health Act. 40 At the same time this Act introduced some new concepts. A provincial inspector of health was provided and the province was divided into ten health districts, each under a district officer of health responsible to the provincial Board. At the local level the renamed medical officers of health were given job tenure, and the municipality was authorized to provide medical care for indigents. The provincial Board also was given some additional duties. It was responsible for all sources of public water supply and could make orders preventing their pollution. Also, where it approved a proposed sewer system, the municipality could borrow money for its construction without obtaining taxpayer approval of the loan.

Hospitals

General Hospitals

The first civilian general hospitals in Ontario were voluntary and functioned free of government regulation. The first of these was York General Hospital, which opened in 1824 in the old Assembly buildings. It proved such an aid to the indigent sick that in 1830 the government granted it £100 in aid of its operations. Similar grants were made in 1831⁴² and 1832, and again in 1837. The first grant to aid in construction of a hospital was made to Kingston in 1832. There seem to have been no other grants for the next ten years; but in 1849 and 1850 money was granted by order in council to the Toronto General Hospital, and in 1851 to Kingston and Hamilton hospitals as well. After 1852 there was a consistent annual grant to each of the six general hospitals in Ontario.

³⁵S.O. 1885, c. 205.

³⁶S.O. 1887, c. 34, s. 55.

³⁷S.O. 1896, c. 63. "An Act for the Slaughtering of Cattle and the Inspection of Meat and Milk Supplies of Cities and Towns".

³⁸S.O. 1905, c. 29.

³⁹S.O. 1886, c. 42.

⁴⁰S.O. 1912, c. 58.

^{41(1830) 2} Geo. IV, c. 31 (Upper Canada).

^{42(1831) 1} Wm. IV, c. 24 (Upper Canada).

^{43(1832) 2} Wm. IV, c. 29 (Upper Canada).

^{44(1837) 7} Wm. IV, c. 98 (Upper Canada).

^{45(1832) 2} Wm. IV, c. 29 (Upper Canada).

Although this system of standard grants to hospitals had become well established by 1867, it remained purely voluntary and variable on the part of the government. In fact in 1863 the amounts had been considerably reduced.⁴⁶

When the government awards grants, it must know how its money is spent. This in 1868 an Act was passed to provide for "The Inspection of Asylums, Hospitals, Common Gaols and Reformatories in this Province". 47 Under its provisions each hospital receiving aid was to be visited twice yearly by an inspector, who would then report to the Lieutenant Governor in Council.

It was not until 1874 that legislation was passed authorizing annual grants to charitable institutions, including hospitals, on an assured basis.⁴⁸ Institutions which were to receive aid were set out in schedules (hospitals were Schedule A), and further names could be added to these lists by the Lieutenant Governor in Council once a favourable report from the inspector had been received. Of course, all aided institutions were still subject to inspection; and in addition all its by-laws had to be approved by the Lieutenant Governor. Under this Act hospitals were to receive twenty cents per day for each day's stay of each patient, and might also receive another ten cents per day if this latter amount did not exceed one-quarter the amount received by the institution from sources other than the government.

In 1895 the provisions of the Charity Aid Act were amended, and no aid was to be given in respect of paying patients (those who paid three dollars per week).⁴⁹ Since this could result in some hardship for newly established hospitals, which had counted on these grants, they were to be continued for the first ten years of a hospital's operation.

In 1912 the grant system was once again changed with the passage of the Hospitals and Charitable Institutions Act.⁵⁰ Grants were still to be made on a per diem basis, but the amount was to be determined from time to time by the Lieutenant Governor in Council. No grants were to be given in respect of paying patients, or where money received from other sources covered the cost of maintenance; nor were grants to be given to a second hospital in any municipality unless the Lieutenant Governor in Council had consented to its construction. The Act also imposed responsibility on the municipality to pay the treatment charges and burial expenses of its indigents.

Hospitals receiving aid were still liable to inspection, and the grants could cease if the inspector made an unfavourable report. Further, all hospitals receiving aid were bound to receive any sick person, including those suffering from tuberculosis. The only exceptions were those suffering from contagious diseases under the Public Health Act. The Act also set up a system for licensing private hospitals,

⁴⁶Department of Health, Hospitals of Ontario, Queen's Printer, Toronto, 1932, p. 18.

⁴⁷S.O. 1868, c. 21.

⁴⁸S.O. 1874, c. 33.

⁴⁹S.O. 1895, c. 60.

⁵⁰S.O. 1912, c. 85.

somewhat similar to that governing private mental asylums. The applicant for a licence must submit detailed plans of his premises and they must actually be approved by the inspector. Licences were granted for maternity hospitals, or medical and surgical hospitals, or both. The licence was renewable annually, but could be revoked by the Provincial Secretary after a hearing at which the proprietor could present his case.

Mental Hospitals

As in the cases of public health and general hospitals, legislation concerning the care of the mentally ill was likewise compelled by events, in this case by the number of destitute insane persons who, for lack of any other accommodation, were kept in the local jails. The first Act⁵¹ merely authorized their incarceration in these prisons and payment of their keep, by the municipality, but it soon became apparent that some special institution was needed to house them. In 1839 an Act was passed which authorized the Governor in Council to appoint commissioners to supervise the erection of an asylum.⁵² Once this was completed, a twelve-man Board of Directors was to be appointed to govern the institution and appoint its staff. Patients were to be admitted if they were resident in the colony and had been declared insane by three doctors. Finally the Board was authorized to set the daily rate charged patients, but those who could show they had no resources would be admitted free. Although a grant of £5,000 was made at the time the Act was passed, the proposed asylum was not completed until 1850.

Once the institution was opened, however, defects in the system of management set up by the Act quickly became apparent. All the authority was vested in the Board of Directors, who insisted on exercising their rights. The superintendent was thus faced with the impossible task of administering an asylum through a staff which was hired by and responsible to the Board. In 1853 an Act was passed to remedy this situation.⁵³ Ultimate responsibility for its management was vested in the Crown, and actual authority was split between a bursar who was given control over finances and a superintendent who would act as administrator.

During the long period between the authorization and the building of the provincial asylum, a number of private institutions sprang up to provide accommodation for the insane. In 1851 an Act was passed to ensure that these homes provided proper housing and care.⁵⁴ Subsequently, no private lunatic asylum could be operated except under the authority of a licence granted by a justice of the peace with the approval of the General Sessions. Further, each application for a licence had to contain a detailed plan of the premises, showing the dimensions of each room and the accommodation provided therein, and no deviation from this

⁵¹(1830) 2 Geo. V, c. 20 (Upper Canada). The Act applied only to the Home District but in 1832 was extended to cover the whole colony. (1832) 3 Wm. IV, c. 40 (Upper Canada). ⁵²(1839) 2 Vic., c. 11 (Upper Canada).

⁵³(1853) 16 Vic., c. 188 (Canada). ⁵⁴(1853) 14-15 Vic., c. 73 (Canada).

plan was allowed. The Act also required that a physician be in attendance for specified times, depending on the number of patients (if there were over 100, he must be full time), and that he keep a weekly medical visitation book showing the sex and state of health of each patient. Finally each licensed asylum was to be inspected at least four times a year by five visitors (a justice of the peace and four physicians) appointed by the General Sessions. If they decided that the asylum was improperly maintained, after giving seven days' notice of their intention to the owner, the justice of the peace might recommend to the Lieutenant Governor that the licence be cancelled.

The Act also provided that no one might be admitted to these private asylums unless two physicians who had no interest in the venture certified him insane, giving reasons for their opinion. A patient might be discharged under an order signed by the person admitting him unless the physician in charge felt he was dangerous to be at large. As a precaution against unjustified incarceration, the Act also provided for release on the order of two of the official visitors.

The same Act that instituted an annual inspection for public general hospitals in 1868 also provided for inspection of provincial mental hospitals and authorized the inspector to make the by-laws that governed these institutions. Most of the other legislation dealing with mental hospitals that was passed during this period was concerned with admission procedures and methods of payment.

In 1873 a method was instituted for committing mentally ill persons for whom no one would take responsibility.⁵⁶ On being informed that such a person was at large, a justice of the peace might issue a warrant that the person be brought before him for a hearing as to his sanity. If this person were found insane, a Lieutenant Governor's warrant would be issued which would authorize his admission to an asylum. Similar provisions were made for those who became insane while in jail.

The same Act provided that the inspector should act as committee or administrator of the estate of any patient for whom none other had been appointed. Parents became liable to pay for the treatment of their children and a spouse for his or her spouse. In the latter instance, though, the individual might be excused from payment if the inspector felt that the money was necessary to provide for other dependants. It was not until 1882 that provision was made for the admission of a completely destitute person if he were certified to be so by the head of the municipality in which he lived.⁵⁷

One particularly enlightened measure passed during the period allowed the medical superintendent to release a patient into the custody of a friend, with the right to take him back if he failed to adjust to normal living conditions.⁵⁸ No

⁵⁵S.O. 1868, c. 21.

⁵⁶S.O. 1873, c. 71.

⁵⁷S.O. 1882, c. 32.

⁵⁸S.O. 1873, c. 31.

change was made in the legislation governing private asylums, except for measures which allowed them to accept alcoholics and drug addicts as voluntary patients; these persons could not stay longer than a year and must be released on their own demand.⁵⁹

Health Legislation since 1914

The first half of the twentieth century saw a great expansion in the number of occupations providing health care. Many of these groups felt that they should be given the same powers of self-regulation as the established professions. Especially since World War II, the advance of medical technology has given rise to many "paramedical" occupations, some of which also have sought self-regulatory privileges.

During the years since World War I the established professional colleges have tended to reduce their involvement in the education of practitioners, delegating this more and more to the universities and other educational institutions; instead they have concentrated on their disciplinary functions and on ensuring the competence of their members. The influx of foreign-trained practitioners, particularly after World War II, has led the colleges of practice to formulate elaborate policies towards registering those not educated in Ontario.

Public health arrangements since 1914 have become more comprehensive and more highly organized. A Department of Health was organized in 1923 to assume responsibility for administering the legislation dealing with public health and hospitals. Generally the principles of this legislation have remained unchanged and the established trends noted in the last section have been continued. Most new public health legislation has dealt with preventive examinations of school children and several new occupations have been added to the list of those regulated in the interests of public health.

Although there has been little fundamental change in the legislation concerning hospitals, the creation of the Ontario Hospital Services Commission has made great changes in the manner of their regulation.

The Private Practitioners

Physicians

The concern of the College of Physicians and Surgeons with excluding other groups from the practice of medicine led it early in this century to seek a definition of this practice. The efforts of the College eventually resulted in the appointment of the Hodgins Commission, which was to study the whole area of the healing arts. It recommended that a definition be legislated. In 1923, however, the government decided it could not pass legislation that would prohibit people from calling on any class of healer they desired in time of illness. In that year an Act was passed,

⁵⁹S.O. 1873, c. 33.

defining practice but excepting those drugless practitioners who registered with the Provincial Secretary.⁶⁰ It was soon found that the Act was very difficult to administer, and in 1925 it was repealed⁶¹ and replaced by the Drugless Practitioners Act.⁶² Some consolation was found by the medical profession in an amendment to the Medical Act forbidding other practitioners (except dentists) to use the title "Doctor".

In 1911 a special committee had been appointed by the College to consider the composition of the Council of the College and the next year it recommended that it be halved to include ten territorial representatives, two homeopaths and one representative from each of the three medical schools. Although a measure to this effect first was proposed to the government in 1914 and often was brought to its attention later, it was not until 1932 that it was finally enacted.⁶³ The new Council was in the recommended form except that the Minister of Health replaced one of the elected representatives.

The responsibilities of the Council of the College for determining standards for admission to the practice underwent several changes in the years between the two world wars. Some of these were informal, as in the matter of examinations, which were delegated to the universities with increasing frequency. Such changes usually did not require alterations in the legislation; but others, particularly those relating to the disciplinary functions of the College, did.

The principal formal changes in the system for licensing physicians were made after World War II, when the College sought to set up a system of registration that would take account of those practitioners whose qualifications were not quite appropriate for the General Register. There had always been groups of physicians in the province who, though not strictly eligible for a licence, deserved (it was felt) some sort of recognition. These included internes and foreign-trained teachers in the medical schools. A similar problem concerned specialists who desired some further recognition than registration on the General Register. The latter was the first problem to be tackled with the creation of a Specialist's Register in 1946.64 Since the standards for registration were the same as those of the Royal College of Physicians and Surgeons of Canada, however, it served no useful purpose and was abandoned in 1963. After the war it was the practice to register teachers and internes on the General Register; but it was soon pointed out that, in the former case especially, this could lead to greater problems. Such teachers could not be prevented from entering private practice should they so desire, and both teachers and internes trained outside the Commonwealth could not be legally registered. In 1952 an Educational Register was established in

⁶⁰S.O. 1923, c. 35.

⁶¹S.O. 1925, c. 48.

⁶²S.O. 1925, c. 49.

⁶³S.O. 1932, c. 22.

⁶⁴S.O. 1946, c. 63.

which all internes who had sufficient training could be registered⁶⁵ and in 1960, an Act was passed authorizing a Temporary Register which could provide a licence restricted as to duration or type of practice.⁶⁶ This Register was intended primarily to include foreign teachers and physicians working for the federal government within Ontario, but soon another use was found for it. Disciplined physicians whose licences had been suspended, often were listed on the Temporary Register with appropriate limitations on their scope of practice.

The disciplinary functions of the College were strengthened in 1919 by an amendment to the Act which made it possible for the College either to suspend or to cancel a physician's licence as a disciplinary measure.⁶⁷ During the interwar period much of the College's attention was directed towards what it considered improper methods of practice. More recently the emphasis has been on dealing with incompetent physicians. In 1942 an Act was passed providing that physicians who had been found mentally incompetent should be struck off the Register.⁶⁸ In 1960 the Act was amended to allow the Council to discipline for "improper" as well as "infamous or disgraceful" conduct.⁶⁹ As the interest of the public in the competence of physicians increased, spokesmen for both the College and the Ontario Medical Association (OMA) said that they felt that the statute did not give them power to discipline incompetent practitioners, and in 1965 the Act was amended to define professional misconduct as "conduct unbecoming a medical practitioner or incompetence".⁷⁰

During this time there were also several changes made in disciplinary procedures. In 1962 the Discipline Committee was empowered to impose the penalties of reprimand or suspension up to three months. If a more severe punishment were felt warranted, the matter would be referred to Council. An appeal lay from the Discipline Committee to the Council and from the Council to the Court of Appeal. In 1966 further amendments increased the powers of the Discipline Committee, allowing it to suspend a member for twelve months and to recommend the penalty to the Council in more serious cases. The appeal provisions were altered to provide that a High Court judge should hear the appeal in the first instance with a further appeal to the Court of Appeal for Ontario.

Dentists, Dental Technicians and Dental Hygienists

The responsibilities of the dental profession for setting admission standards, for disciplining practitioners, and for ensuring the competence of practitioners have not been fundamentally altered in the period since 1914. The changes that were

⁶⁵S.O. 1952, c. 55.

⁶⁶S.O. 1960, c. 66.

⁶⁷S.O. 1919, c. 25.

⁶⁸S.O. 1942, c. 26.

⁶⁹S.O. 1960, c. 66.

⁷⁰S.O. 1965, c. 69.

⁷¹S.O. 1961-62, c. 80.

⁷²S.O. 1966, c. 85.

made in the relevant legislation were similar to those affecting physicians as described in the preceding section. On their own initiative the dentists went further than the physicians in making regulations which actually defined misconduct. But as in the case of the physicians, there were no major legislative changes in the powers of the profession in this area until the 1960's. The new public concern about the competence of practitioners noted above in connection with physicians also applied to the dental profession, and in 1966 the Dentistry Act was amended to provide that professional misconduct included incompetence. At the same time the discipline procedures were altered to conform with those of the College of Physicians and Surgeons of Ontario. For example, the Discipline Committee was empowered to impose minor penalties. One unique power was given to the Board, however: the power to fine offending dentists up to \$1,000.

The most distinctive changes in the legislation affecting dentistry in the years since World War I have been those relating to auxiliary workers in the practice. The period after the First World War was marked by the emergence of a number of occupations auxiliary to the established healing professions. The earliest of these groups to be recognized were the dental technicians. Technicians manufactured false teeth and other dental appliances according to the prescription of a dentist. There was often conflict between the two groups, since many technicians felt that they were as able as the dentists to prescribe.

Responsible members of both groups endeavoured to improve relations, but often with little success. In 1920 the Ontario Prosthetic Dental Association was formed to seek legislation governing technicians, and a joint committee was formed with members of the College to draft a Bill. No agreement was reached, however, and the project was abandoned. In 1939 the technicians requested the Council to form another joint committee which could attempt to solve disputes, but in spite of their efforts relations deteriorated further. The result was an amendment to the Dentistry Act defining dentistry very broadly but excepting those who worked on a prescription.⁷⁴

Under this Act the possession of dental apparatus was to be prima facie evidence of practice. An exception was made if the College had given permission for its use; thus practical power to license dental laboratories was given to the College.

In spite of the repressive nature of this legislation, or perhaps because of it, joint efforts continued to be made to find an acceptable means of self-regulation for the technicians. Agreement was reached in 1945 and embodied in legislation the following year.

The Governing Board of Dental Technicians established by the Dental Technicians Act⁷⁵ consisted of five members appointed by the Lieutenant Governor in

⁷³S.O. 1966, c. 38.

⁷⁴S.O. 1942, c. 8.

⁷⁵S.O. 1945-46, c. 18.

Council. These men had power to make regulations governing the registration, qualification⁷⁶ and discipline of dental technicians in Ontario, but all regulations had to be approved by the Royal College of Dental Surgeons of Ontario before they were submitted to the government for approval.

A number of exceptions were made where unlicensed persons could perform as dental technicians. These included dentists and physicians and employees of hospital, university and municipal clinics who were working according to a dentist's prescription. Another exception was made in favour of the employers of dental technicians, and of a single dentist or partners in a joint practice; but dentists with separate practices could not join together and employ an unregistered technician.

Finally the Act allowed registered technicians to incorporate their businesses but required that each incorporated laboratory should be managed by a registered technician.

Like all the healing professions, dentists recognized that much of their work was routine and could be done just as well by less highly qualified persons. Unlike the other professions, however, soon after the war they decided to promote a course to train auxiliaries who could relieve them of these simpler tasks. In 1947 an Act was passed allowing the Board to make regulations concerning the establishment and control of a body to be known as dental hygienists.⁷⁷ A great deal of opposition to this plan was expressed by the conservative members of the profession, who firmly believed that all work done inside the mouth should be performed by a dentist; thus it was not until 1951 that any regulations were published.⁷⁸ A two-year training course was started that fall by the University of Toronto, and there has been increasing acceptance of dental hygienists ever since.

Pharmacists

Under the provisions of the Pharmacy Act as re-enacted in 1911, the College of Pharmacy lacked some of the regulatory powers with which the physicians' and dentists' bodies had been invested. In particular, the disciplinary power of the College of Pharmacy did not equal that of the other colleges. In 1917 the College's only power was to recommend to the Lieutenant Governor that the name of a member who had been guilty of an offence under the Pharmacy Act be erased from the Register. In that year an amendment was passed which provided that the Council might reinstate such a member after two years. 79 In 1924 the power to impose the disciplinary penalty was transferred from the Lieutenant Governor to the Council.

⁷⁶The regulations published under the Act, (C.R.O. 1950, Reg. 34) provided that applicants should have completed a four-year course in articles and must pass a registration examination set by the Board.

⁷⁷S.O. 1947, c. 28.

⁷⁸O. Reg. 72/51.

⁷⁹S.O. 1917, c. 35.

Although pharmacy was one of the earliest professions to be regulated, comparatively few changes had been made in the Pharmacy Act since its inception; in the late 1940's the College began to press for a completely new Act. The government refused to present the draft Bill prepared by the College to the Legislature, however, and a number of separate Bills were substituted. The first of these, passed in 1951, placed further restrictions on the sale of drugs by both pharmacists and wholesalers.⁸⁰ It also provided for the erasure from the Register of a pharmacist who was found to be mentally incompetent.

The next year another Act was passed⁸¹ and for the first time all registrants were entitled to vote for Council members. They also were required to pay an annual fee; pharmacy owners and managers still were charged with an extra levy.

In 1953 the Act was completely revised to bring it more into line with those governing the other professions.⁸² Great changes were made in the Council's disciplinary powers. For the first time it was given power to cancel the licence of a member found guilty of "negligence, incompetency or improper conduct in a professional respect". In 1960 an amendment added the power to suspend on the same grounds.⁸³ The 1953 Act also provided a limitation period of six months for an action brought against a pharmacist for negligence.

At the same time several new provisions were made concerning corporate pharmacies. In any new company formed to operate a pharmacy, the majority of both shareholders and directors had to be pharmacists. In addition, a Register of pharmacies was to be kept, and anyone who bought or opened a pharmacy had to inform the Registrar of that fact.

Nurses

The Nurses Register authorized in 1912 was not established until 1920. In the meantime the Graduate Nurses Association of Ontario carried its plea for regulations governing nurses' training to the Hodgins Commission. The Commissioner recommended that some such regulations be made,⁸⁴ and the Department of Education was given the job of drafting them. A stalemate occurred when the Provincial Secretary refused to accept these regulations because they had been drafted by another department. The situation was not resolved until a new government passed the Nurses Act in 1922.⁸⁵ Even the implementation of this Act was delayed until 1923 because of the objections raised by the hospitals to the regulations made under it.⁸⁶ These regulations provided that only graduates of "approved"

⁸⁰S.O. 1951, c. 64.

⁸¹S.O. 1952, c. 74.

⁸²S.O. 1953, c. 79. 83S.O. 1960, c. 66.

⁸⁴Report on Medical Education in Ontario, 1917 (The Hon. Mr. Justice Hodgins, Commissioner), King's Printer, Toronto, 1918, p. 43.

⁸⁵S.O. 1922, c. 60.
86E. M. Dickson, Outline of the History of the RNAO, April 1932 (Unpublished and found in the Registered Nurses' Association of Ontario library), p. 11.

training schools could be registered; to win approval, the hospital must offer a two-year course following a specified curriculum. In addition each applicant for registration had to pass a standard registration examination. Finally provision was made for the appointment of an inspector of training schools, who was to keep a record of the "approved schools".⁸⁷ In 1924 the administrative responsibility for the Act passed from the Provincial Secretary, who had continued to keep the Nurses Register, to the Department of Health.⁸⁸ At the same time the regulations were amended to provide that a Council of Nurse Education should be appointed to advise the Department.⁸⁰ This Council was to include three nurses, as well as two physicians and the inspectors of hospitals and training schools, and it marked the first occasion that nurses were given any voice in controls exercised over their profession.

As nursing grew in popularity, a number of schools were opened, mainly in nursing homes or by correspondence, that offered nurses' training to girls who did not meet the entrance standards of hospital schools. Often the students of these schools did not realize they were not eligible to write the registration examinations. It was to prevent girls from being misled in this fashion that an amendment to the Nurses Act was passed in 1938, providing that nursing schools could be established only with the consent of the Minister of Health. This measure did not abolish the unapproved schools, however; they still continued to train "practical nurses".

In 1944 the provisions governing the administration of the Act were reenacted. A Director of Nurses was appointed to act as Registrar, and statutory recognition was given to the Council of Nursing Registration. The Act also gave the Lieutenant Governor in Council power to make regulations governing the cancellation or suspension of registration. Unlike those of other professions, the regulations published that year based disciplinary actions not on misconduct, but on malpractice, incapacity, or alcohol or drug addiction.

Registration under the Nurses Act only certified that the registrant had achieved a certain standard of training; it did not prevent girls who did not meet this standard from being employed and known as "nurses". In 1945 an attempt was made to recognize and organize this group in the presentation of a Bill⁹³ that would allow them to be registered under the title of registered nursing assistant. Although this measure was not passed, a more detailed Act was put into effect two years later.⁹⁴ This gave the Lieutenant Governor in Council the same powers over certified nursing assistants as over nurses, including the approval of their training

⁸⁷Regulations under the Nurses Act, Queen's Printer, Toronto, 1924.

^{88(1924) 57} Ontario Gazette, Part I, p. 828.

⁸⁹ Regulations under the Nurses Act, Queen's Printer, 1924.

⁹⁰S.O. 1938, c. 35.

⁹¹S.O. 1944, c. 42.

⁹²O. Reg. 221/44.

^{93 (1945)} Second Session of the Twenty-First Legislature of the Province of Ontario, Bill 66. 94S.O. 1947, c. 71.

courses, which had to be given in hospitals. Registration in this case, too, operated only as a certification, and many nurses remained who did not qualify for registration in either category.

In 1951 nurses finally achieved the ambition first stated in 1904: regulatory power over nursing was transferred from the Lieutenant Governor in Council to the Registered Nurses' Association of Ontario.95 Under the Nurses Registration Act its Board of Directors was given power to make regulations concerning the education, examination, registration and discipline of nurses. The Nursing Act, passed at the same time, provided that the Lieutenant Governor should retain control over the establishment of training schools and certified nursing assistants.96 The regulations under this Act changed the provision that all schools must be run by a hospital or university. This opened the way for new methods of training. For example, some high schools now offer courses for registered nursing assistants; and private nursing schools that operate independent of hospital control, such as the Florence Nightingale School and Quo Vadis, offer shortened and refresher courses for graduate nurses.

There were still large numbers of "nurses" who were not governed by any legislation, and an attempt was made to remedy this in 1957.97 An amendment to the Nurses Act provided that no one could offer a training course for "practical" nurses without the approval of the Lieutenant Governor in Council. Such courses usually were offered by private profit-making enterprises, and it was decided in 1960 that they would be now classified as "trade schools" and placed under the control of the Department of Education.

The 1957 Act also provided for regulations to govern the annual licensing of nursing registries by the Director of Nursing. This ultimately reduced the amount of nursing aid available from this source, since the regulations provided that registries could list only registered nurses, certified nursing assistants and practical nurses graduated from approved schools. Until this time most of the nurses listed had been "undergraduates", those who had not completed their training.

Nursing was the only profession in which registration was controlled by a voluntary organization, and there was naturally some opposition among nurses to this situation. Many of them also thought that control over the various classes of nurse should be vested in one body. It was felt that the best solution to both these problems would be to set up a College of Nurses, and an Act to this effect was passed in 1962.98 The Council of the College was to register both nurses and nursing assistants, and to regulate their education and approve their schools. All registered nurses were entitled to vote for the majority of the Council representatives. In addition the RNAO was to appoint four representatives, and a further

⁹⁵S.O. 1951, c. 58.

⁹⁶S.O. 1951, c. 59. 97S.O. 1957, c. 82.

⁹⁸S.O. 1961-62, c. 90.

member was to be appointed by the Association of Certified Nursing Assistants of Ontario (renamed in 1965 the Ontario Association of Registered Nursing Assistants).

The College did not have sole power over training schools for long, however. In 1963 legislation was passed setting up an Educational Advisory Committee which was to examine all the College's proposed regulations concerning education. The Council was to consist of representatives of all bodies who might have an interest in nursing education, including, of course, nurses, but also representatives from the Ontario Hospital Services Commission, Ontario Hospital Association, Department of Education and the university medical schools. The following year the power to approve schools was transferred from the College to the Lieutenant Governor in Council, although the College was still to make recommendations on this matter.

Drugless Practitioners

Various types of drugless practitioners had begun practising in Ontario at the turn of the century. Although the orthodox medical profession scorned them as quacks and cultists, most groups had some training and many practised according to theories that were widely accepted in other parts of the world. Two of these groups, the osteopaths and the chiropractors, sought legislation giving them comparable privileges to the established professions, but in each case opposition from the medical profession defeated the measure. The continued opposition to their right to practise on the part of the College of Physicians and Surgeons of Ontario eventually led the government to provide for a registration system under the Medical Act in 1923.¹⁰¹ When this system proved unworkable, a separate Drugless Practitioners Act was passed in 1925.¹⁰²

This Act established a Board of Regents, to be appointed by the Lieutenant Governor in Council. The Board had the power to govern the various forms of drugless therapy by regulations. These regulations might provide for the registration of drugless practitioners by classification and might specify the practice of each classification. In addition they might deal with the cancellation or suspension of registration for incompetence, ignorance or misconduct. The first regulations were published under the Act in 1926¹⁰³ setting up five classifications: chiropractors, chiropodists, drugless therapists, masseurs and osteopaths. In each case, in order to be registered the applicant had to follow a specified educational program and pass a Board-administered licensing examination.

In 1944 regulations were published which made some changes in the classi-

⁹⁹S.O. 1962-63, c. 92.

¹⁰⁰S.O. 1964, c. 73.

¹⁰¹S.O. 1923, c. 35.

¹⁰²S.O. 1925, c. 49.

^{103 (1926) 59} Ontario Gazette, Part I, p. 77.

fication system.¹⁰⁴ Chiropodists were removed from the Drugless Practitioners Act and registered under a separate Chiropody Act,¹⁰⁵ which established a Board of Regents for Chiropody with the same powers as the Board under the former Act. A new classification for physiotherapists was established. A distinction was made between "major" and "minor" classifications in that the minor classifications — masseurs and physiotherapists — could engage in practice only on the prescription of a physician or of a practitioner registered under one of the major classifications.

The Board of Regents of Drugless Practitioners was faced with the difficult task of regulating professions varying widely in skill, education and acceptance by the more orthodox medical practitioners. In 1952 this situation was eased by the passage of an Act which authorized the Lieutenant Governor to appoint a Board of Directors to take the place of the Board of Regents in governing a specific classification. 106 By 1955, separate Boards had been appointed for each classification, but since that time no new regulations have been made for drugless therapists. Although new regulations were made concerning all other groups, they were similar in form and scope. Each provided for registration after passing an examination set by the Board, and for annual renewal thereafter, Occupational designations that might be used were severely limited, and a practitioner's registration might be cancelled if he were found guilty of misconduct, ignorance or incompetence. Only the educational provisions reflected the great differences among the various groups. Masseurs were entitled to write the registration examination after completing a one-year course, once they had received the Ontario intermediate certificate. 107 Physiotherapists had to write nine grade thirteen papers and complete a course totalling 2,500 hours, whereas chiropractors needed to pass four grade thirteen papers and complete a four-year course. Osteopaths had the highest standards of all: students must complete a four-year course to be started after two years of post-secondary education.

Optometrists

Early in this century a group of optometrists formed an association to seek legislation to control the practice of optometry. To this end, Bills were presented in 1911,¹⁰⁸ 1912¹⁰⁹ and 1913;¹¹⁰ none of these passed, however, because the Legislature felt another "closed corporation" would be created.

A fourth attempt at legislation was made in 1919, and this time the Bill was passed. 111 It provided for the appointment by the Lieutenant Governor in Council

¹⁰⁴S.O. 1962-63, c. 92.

¹⁰⁵S.O. 1963-64, c. 73.

¹⁰⁶S.O. 1955, c. 25.

¹⁰⁷O.Reg. 12/55.

¹⁰⁸⁽¹⁹¹¹⁾ Third Session of the Twelfth Legislature of the Province of Ontario, Bill 181.

^{109 (1912)} First Session of the Thirteenth Legislature of the Province of Ontario, Bill 169.

¹¹⁰(1913) Second Session of the Thirteenth Legislature of the Province of Ontario, Bill 195. ¹¹¹S.O. 1919, c. 39.

of a five-man Board of Examiners. This Board could make regulations concerning the educational qualifications of those who wished to register and could set qualifying examinations for those who met the standards.

The Act provided only for certification of optometrists, but the Board was also given certain powers over unregistered practitioners. For example, just as it could erase an optometrist from the Register if it found he had been guilty of illegal practices, incompetence, inebriety, fraud or misrepresentation, so also could it prohibit an unregistered optometrist from practising for one year on exactly the same grounds. The Act also prohibited anyone from selling spectacles from house to house or by any other means than from an established office.

The Act applied to both opticians and optometrists without distinction. The difference between them was recognized in the first regulations under the Act published in 1920, which defined the scope of each group and set lower educational requirements for opticians.¹¹²

At this time there was no training school in Canada, and in 1925 an Act was passed allowing the Board to set one up. 113 The school was opened that same year, giving a two-year course for optometrists.

Just as the first efforts at optometrical legislation were directed against the itinerants, subsequent efforts were aimed at subduing their replacements, the mail-order houses. These men operated from an established office, sending salesmen throughout the country who carried machines with which a customer could test his own eyes and order the indicated spectacles by mail.

The first Bill aimed at preventing this practice was introduced in 1929 and defeated.¹¹⁴ The same fate met a measure presented the following year.¹¹⁵ In 1931, however, after a great deal of debate and several amendments, an Act was passed which somewhat limited mail-order activities.¹¹⁶ It provided that only those on the Register could sell spectacles but made exceptions in favour of retail merchants. These men, were prohibited, however, from supplying any device by which a customer might test his own eyes except the standard eye chart. This Act also converted registration into licensure by prohibiting anyone who was not registered from practising optometry, unless according to exception.

Although this measure was not as restrictive as the optometrists had wished, the Board was extremely vigilant in enforcing its provisions. This, together with the high prices charged for spectacles in a time of depression, incurred the enmity of the Opposition leader, Mitchell Hepburn, against the profession. In 1933, he introduced a Bill to repeal the Optometry Act, but the Bill was allowed to lapse.¹¹⁷

^{112(1920) 53} Ontario Gazette, Part I, p. 326.

¹¹³S.O. 1925, c. 67.

^{114 (1929)} Third Session of the Seventeenth Legislature of the Province of Ontario, Bill 167. 115 (1930) First Session of the Eighteenth Legislature of the Province of Ontario, Bill 115. 116S.O. 1931, c. 45.

^{117 (1933)} Fourth Session of the Eighteenth Legislature of the Province of Ontario, Bill 82.

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When a change in government brought him to power as premier in 1936, a repealing Act was soon passed. A new Act was introduced providing for an appointed Board with the same power to regulate registration and education, but with a disciplinary function limited to revoking the licences of those convicted of fraudulent practices. It was specifically provided that practitioners might advertise the price of spectacles.

Another change of government in 1944 led to legislation restoring the Board's power to discipline for disgraceful conduct, as defined by regulation, and giving the Board power to make regulations concerning advertising including those setting the actual price and terms upon which spectacles could be bought.¹²⁰

The opposition in the Legislature to the 1944 measure continued even after the Act was passed. In 1945 Mitchell Hepburn, again in the Opposition, unsuccessfully presented a Bill to repeal the provision; 121 and in 1946 the debate over a corrective measure 122 centred on the 1944 Act, in spite of the fact that no regulations were made under it until 1950. These provided that conviction for a crime affecting fitness to practise or the use of an improper occupational designation would constitute improper conduct. It was not until 1957 that regulations aimed at full price disclosure in advertising were put into force.

Like all the major disciplines, the optometrists felt that they should be able to elect their own Board. The first step towards this end was taken in 1951, when an Act was passed which provided for a representative Board of nine optometrists and three opticians. ¹²³ Because of disagreements between these two groups, however, the Act was never proclaimed in force and, as it became apparent that no agreement could be reached, Acts were passed in 1961 giving each group its own governing body. ¹²⁴

The following year the Optometry Act created the College of Optometrists in which all registered optometrists were given membership. 125 It was to be governed by an elected Board of Directors, which was given the same regulatory powers as the old Board of Examiners.

In contrast, the Act governing opticians or ophthalmic dispensers, as they preferred to be called, provided for a governing board to be appointed by the Lieutenant Governor in Council. The Council, however, could provide that the Board should be elected. Opticians were limited to dispensing ophthalmic appliances on the prescription of a physician or optometrist, but they could supply duplicates on their own account. Aside from physicians and optometrists who were

¹¹⁸S.O. 1936, c. 47.

¹¹⁹S.O. 1936, c. 46.

¹²⁰S.O. 1944, c. 45.

^{121 (1945)} Second Session of the Twenty-First Legislature of the Province of Ontario, Bill 60. 122 The measure merely altered the date of the grandfather clause. S.O. 1946, c. 68.

¹²³S.O. 1951, c. 63.

¹²⁴Ophthalmic Dispensers Act, S.O. 1960-61, c. 72. Optometry Act, S.O. 1960-61, c. 73.

¹²⁵S.O. 1961-62, c. 101.

exempted from the Act, no one else could dispense corrective lenses, although retail merchants were still allowed to sell self-prescribed spectacles. The Board was given the usual powers concerning registration and discipline. The original Act provided that an applicant might write the registration examination if he had completed the prescribed course with one year's practical experience, or, alternatively, if he had three year's practical experience supervised by a physician, wholesale optical company, optometrist or optician. In 1963 this latter provision was repealed and all applicants were required to undergo the academic training. ¹²⁶ By 1965, however, it was apparent that this would limit unduly the numbers entering the profession; once again three years' practical training was held to be sufficient qualification, provided that the correspondence course provided by the Board had been completed during the training period. ¹²⁷

Other Healing Arts Groups

The great strides in medical knowledge made since World War II have spawned a large number of ancillary occupations that deal with particular aspects of health care. For example, improvements in therapeutic techniques have led to proliferation in the types of therapists employed to administer them, and the growing use of diagnostic machines such as x-rays has created a demand for operating technicians. The variety of jobs that has been created is shown in the various methods used in training. These range from postgraduate university courses to informal instruction by the employer, physician or hospital. In this rapidly changing environment, voluntary associations for most occupations have been organized which try to impose uniform standards on members of each occupational group. Recently many such groups have tried to obtain legislative sanction for these standards, but so far only two of them have succeeded.

Psychologists. At the request of psychologists in the province, the Psychologists Registration Act was passed in 1960.¹²⁸ The Act provided for the appointment of a Board of Directors in Psychology which was to maintain a Register of those entitled to practise psychology as a healing art. Registration is based on passing an examination set by the Board after completing a doctoral program in psychology, together with one year's practical experience. A grandfather clause provided for registration of practitioners who had two years' experience and a doctorate, or four years' experience after a Master's degree. Only those registered under the Act are entitled to use the title "Psychologist", except for physicians or persons in the course of their employment by the federal government, Ontario government or a university.

The Act also defines limits of practice. Patients can be treated only on a referral from, or in association with, a physician, and psychologists are expressly prohibited from practising medicine.

¹²⁶S.O. 1962-63, c. 100.

¹²⁷S.O. 1965, c. 93.

¹²⁸S.O. 1960, c. 90.

Radiological Technicians. The other group to achieve legislation during this period was the radiological technicians, when the Radiological Technicians Act was passed in 1963.¹²⁹ The Board appointed under the Act is composed of four technicians and three physicians. In addition any regulations proposed under the Act must be submitted to the College of Physicians and Surgeons of Ontario thirty days before presentation to the Lieutenant Governor. The Board is entitled to set the entrance standards for training courses, to approve such courses, and to set registration examinations for those who graduate. Registration entitles the registrant to the use of the title "Registered Radiological Technician" (R.R.T.) but does not operate as an exclusive licence to perform the technical services involved.

Public Health

The Department of Health was established in 1923 and validated by legislative authority the following year. ¹⁸⁰ In 1927 the Public Health Act was revised so that the Department took over the functions of the Board of Health and the Minister the duties of the chief officer of health. ¹⁸¹ In addition provision was made for the appointment of a chief inspector of health.

The change in administration ushered in a period of expansion in public health provisions. Many of these had to do with the health of school children. In 1924 the local boards of health had been authorized to arrange for medical and dental inspection in the schools. The 1927 Act provided that there should also be an annual sanitary inspection of school buildings, and in 1940 it was provided that school boards could negotiate with the municipality regarding the provision of a full-time public health nurse for the school system. Another provision regarding children was made in 1945, when it was provided that all premises where children from ages three to sixteen were cared for must be inspected by the medical officer of health, who gave any orders to the operator he felt necessary to ensure their proper care. Also in 1938 an Act was passed which required that all milk sold be pasteurized.

There were also some new provisions regarding the control of disease. In 1934 the Department was authorized to pass regulations regarding the isolation within their homes of a person contagiously ill and his contacts. The medical officer of health was given powers to identify and isolate germ carriers in 1938, 137 and in 1945 it was decided that local boards could enter into agreements with hospital boards regarding the provision of isolation hospitals. 138

¹²⁹S.O. 1962-63, c. 98.

¹³⁰S.O. 1924, c. 69.

¹³¹S.O. 1927, c. 73.

¹³²S.O. 1924, c. 83.

¹³³S.O. 1940, c. 22.

¹³⁴S.O. 1945, c. 17.

¹³⁵S.O. 1938, c. 30.

¹³⁶S.O. 1934, c. 47.

¹⁸⁷S.O. 1938, c. 30.

¹³⁸S.O. 1945, c. 17.

Finally, the number of occupations supervised by the Department increased. According to a 1930 Act all barber shops and hairdressing establishments were to be licensed and subject to departmental regulation; later, all plants producing non-intoxicating beverages were to be licensed; and in 1936 an Act was passed regulating fumigation and requiring that each fumigator be licensed.

After the war the public health functions of the Department of Health continued to increase, both in the provision of services and the regulation of occupations that might affect health. In 1954 the Minister was authorized to make grants to institutions caring for polio victims, ¹⁴² and in 1955 a public program of mother and child care was authorized ¹⁴³ which included diagnostic and medical services for expectant mothers and for children. In 1957 an Act was passed setting out the method by which a municipality might institute a water fluoridation program, ¹⁴⁴ and most recently in 1966 local boards were authorized to provide ambulance services, ¹⁴⁵

Although the responsibility for approval of water and sewage systems was transferred in 1957 to the Ontario Water Resources Commission, the Department retained some control over the initiation of such systems. In 1959 legislation provided that the Department's statement that a sewage system was necessary was sufficient authorization for the municipality to borrow money for the purpose. ¹⁴⁶ In 1965 the local board was given power to authorize a building to be linked up with the sewer system. ¹⁴⁷ The Act went on to provide that if the owner could not afford to pay for such installation, the municipality might do so and later charge the owner in installments.

The Department also expanded its supervisory functions in respect of public health. In 1959 it was given the power to inspect any premises in which an upholstering business was carried on. 148 Public swimming pools were placed within its regulatory powers in 1964 and, finally, in 1967 the Public Health Act was amended to enable the Minister of Health, with the approval of the Lieutenant Governor in Council to make regulations for the licensing and regulation of medical laboratories and other health facilities. 150

At the time of writing a complete revision of the Public Health Act by the Department of Health was in progress.

¹³⁹S.O. 1930, c. 52,

¹⁴⁰S.O. 1932, c. 34. ¹⁴¹S.O. 1936, c. 51.

¹⁴²S.O. 1956, c. 76.

¹⁴³S.O. 1955, c. 65.

¹⁴⁴S.O. 1957, c. 97.

^{1455.0. 1957, 6. 97.}

¹⁴⁵S.O. 1966, c. 125.

¹⁴⁶S.O. 1959, c. 79.

¹⁴⁷S.O. 1965, c. 106.

¹⁴⁸S.O. 1957, c. 97.

¹⁴⁹S.O. 1964, c. 93. 150S.O. 1967, c. 79.

Hospitals

About the turn of the century a great deal of attention was centred on tuber-culosis, and several sanatoria were built to receive its victims, mainly in the Muskoka district. Like early general hospitals, these institutions received grants from the province but without any legislative authority. In 1913 the Sanatoria for Consumptives Act was passed both to regularize these grants and to lay down the rules under which further sanatoria might be built.¹⁵¹ A municipality, or a group of municipalities under an agreement, was responsible for the building, construction and management of each sanatorium, but all plans had to be approved by the Board of Health. The municipality could then pass by-laws raising the money for its construction, appointing a Board of Trustees, and setting out the conditions governing the admission of patients. The province would make grants to cover one-fifth of the construction costs, and would make per diem maintenance grants of seventy cents per patient. In 1926 the Act was amended to provide that any sanatorium receiving provincial aid could not refuse to admit any patient suffering from tuberculosis.¹⁵²

Soon after the Department of Health was created, it assumed responsibility for the administration of hospitals from the Department of Hospitals. Those Acts which governed hospitals were re-enacted to accommodate this change in 1931.

The Public Hospitals Act of 1931 provided for provincial grants to "approved" hospitals — i.e., those receiving aid in 1930 or those approved by the Lieutenant Governor in Council. 158 In return for this aid, which was set at one dollar and seventy-five cents per day for each patient, hospitals became subject to greater control by the government than heretofore. The Department could make regulations classifying hospitals and concerning its staff, admission and treatment of patients, patient records, and inspection. Each hospital was required to provide facilities for the training of medical students. All hospital by-laws continued to need government approval. The Act also set out new arrangements for municipal payments for indigent patients. The hospital was required to notify the municipality of the admission of any indigent resident therein, and the municipality had twenty days to dispute its liability on the grounds that the patient was either not an indigent person, or not a resident in the municipality. If the municipality that made the payments was able to ascertain that the patient was resident in another municipality in Ontario at the time of admission to hospital, it could recover its expenditure as a debt from the municipality in which the patient was resident.

An Act to govern private hospitals was passed at the same time. ¹⁵⁴ By definition, a private hospital was any house which admitted more than four patients. The Department could make regulations governing matters as in public hospitals.

¹⁵¹S.O. 1913, c. 86.

¹⁵²S.O. 1926, c. 72.

¹⁵³S.O. 1931, c. 78.

¹⁵⁴S.O. 1931, c. 77.

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Otherwise, the provisions remained much the same: each operator had to have a licence; and the application was required to give details of the accommodation, which could not be changed without permission.

The Sanatoria for Consumptives Act was also changed to meet the new situation. Provincial aid was available only to approved sanatoria, and approval was on the same basis as general hospitals. In return for this aid such institutions were required to accept patients suffering from tuberculosis and to provide facilities for medical students. Sanatoria which received aid could not be closed without the permission of the Lieutenant Governor in Council. In addition municipal liability for indigent patients was put on the same basis as for general hospitals.

In 1939 the Act was amended to provide that the medical officer of health might require any person be examined for tuberculosis, 156 and in 1941 he was given authority to lay a complaint before a magistrate who could, after a proper hearing, commit a person found to have tuberculosis to a sanatorium for one year. 157

The most important change in hospital legislation since World War II took place in 1957 with the passage of the Ontario Hospital Services Commission Act. The Commission set up by the measure was to consist of three to seven members appointed by the Lieutenant Governor in Council, and its main function was to institute and administer a hospital insurance plan. In addition to this task, however, it was given the responsibility of administering both the Public and Private Hospitals Acts. The Commission was also given supervisory and financial powers in the hope that it would "insure the development throughout Ontario of a balanced and integrated system of hospitals and related health facilities". These powers ranged from the authority to institute research projects, to sections advising on hospital management and accounting; and from operating schools for hospital personnel, to approving the sites of new hospitals. Finally, it was the Commission which was to disburse the provincial grants to hospitals. The following year (1958), insurance coverage was extended to those in mental hospitals and tuberculosis sanatoria.

Both the Public Hospitals Act and the Private Hospitals Act were re-enacted in 1957 to bring them into accord with the Hospital Services Commission Act, but there were no substantial changes in either. Since that time, however, the Commission has instituted a good deal of uniformity in the administration of hospitals. One example of this is the amendment of the Nurses Act which allows

¹⁵⁵S.O. 1931, c. 76.

¹⁵⁶S.O. 1939, c. 42.

¹⁵⁷ S.O. 1941, c. 51.

¹⁵⁸The original Act was passed in 1956 but was re-enacted in 1957. S.O. 1957, c. 46. ¹⁵⁹S.O. 1958, c 39.

¹⁶⁰ Public Hospitals Act, S.O. 1957, c. 98. Private Hospitals Act, S.O. 1957, c. 94.

certain classes of nurses - such as those trained at the Salvation Army's Grace Hospital — to be registered as registered nursing assistants, so that they can fit within the hierarchy of staff required by the Commission.

As medicine has become more complicated, and as more and different groups of persons have become necessary to provide adequate health care and services, hospitals rather than simply providing a place for physicians to practise on private patients have themselves become primary providers of health care. This, of course, involves greater direct responsibility to patients, and recent legislation has reflected this trend. In 1966 an amendment was passed providing that the chief of staff of a department (or, if the hospital was not divided into departments, the chief of staff of the hospital) was responsible for all the patients within his department to the extent that if he became aware that one of them was not receiving proper care from his own physician, he should take over the actual treatment himself and report the matter to the medical advisory committee. The committee would then deal with the offending physician. 161

Mental Hospitals

The legislation concerning mental hospitals was re-enacted in 1913, but the only new provisions were those which permitted the admission of voluntary patients and required the investigation of the superintendent into his financial affairs before the admission of any patient. 162 In 1916 the Act was amended to provide for the admission of drug addicts and alcoholics on the same basis as to private sanatoria. 163

In 1919 the names of hospitals were changed from Hospitals for the Insane to Ontario Hospitals. 164 The first real change in the care of the mentally ill came in 1926, when the Psychiatric Hospitals Act was passed. 165 It provided that cities over 100,000 might establish hospitals for "the observation, temporary cure and treatment" of residents of the municipality. The intent of these hospitals was to discover if a patient was insane; thus certain groups such as the aged, epileptics, feebleminded and addicts were excluded. Once established, the hospital was to be administered by the Department of Health, which would appoint the staff and make grants towards maintenance of the institution. Admission could be voluntary, or on the certificate of a physician, or by warrant of the Deputy Minister or Lieutenant Governor, and was limited to those persons who were residents of the municipality. Patients could be discharged by the superintendent if he thought them fit; if he decided they were insane, he could have them certified in the approved manner.

¹⁶¹S.O. 1939, c. 42.

¹⁶²S.O. 1916, c. 83.

¹⁶³S.O. 1916, c. 64. 164S.O. 1919, c. 83.

¹⁶⁵S.O. 1926, c. 71.

In 1927 the Hospitals for the Insane Act was changed to accommodate the new office of the Public Trustee. 166 He replaced the inspector as the committee of those insane for whom none other had been appointed. His responsibilities as such were the same as the inspector's had been.

In 1935 the Mental Hospitals Act replaced the Hospitals for the Insane Act. 167 The new Act allowed voluntary or addictive patients to be certified while in the hospital. The most important provisions, however, were those which extended the services offered by such hospitals. Approved homes were set up to which a patient could be discharged to adjust to normal life, and yet still be considered a patient. The Act authorized the creation of "examination units", which were like psychiatric hospitals in that they provided a place for temporary observation (thirty days) for those who were suspected of being insane. The Department might also establish mental health clinics which were to be supervised by a physician and staffed by psychologists and social workers. Their function was to examine persons to determine their physical and mental condition. Patients might be voluntary, or referred by an organization approved by the Deputy Minister or by a school. Reports on the patient's condition were to be made to the patient, the Deputy Minister, and the referring organization.

Since World War II, attempts have been made to widen the base of treatment of mental illness and to improve the procedures surrounding admission and release. In the 1950's an attempt was made to achieve these ends by utilizing the facilities of the public hospitals. In 1952 legislation authorizing detention units was passed. The units were to be set up in public hospitals for the reception both of patients under the various warrants of the Lieutenant Governor or Deputy Minister, and of those remanded by a judge to "a safe and comfortable place", provided that one physician had said that the person was a suitable subject for admission. A patient in the unit could be kept for twenty-one days, after which he must be discharged or certified.

The establishment of detention units was followed by the creation of observation units in 1956.¹⁶⁹ These were to consist of no more than one-fifth of the beds in the psychiatric unit of the public hospital, and were to be used to determine the mental condition of any patient who applied, provided that one physician thought he needed care. The observation period was limited to five days, with an extension of another five days only with the consent of the hospital's governing body. Finally in 1960 an Act made it possible to admit anyone apparently needing care to a mental hospital for thirty days, if the superintendent and one physician consented.¹⁷⁰

New provisions were made regarding the release or retraining of patients. In 1962 it was stated that industrial rehabilitation centres might be established, where

¹⁶⁶S.O. 1927, c. 96.

¹⁶⁷S.O. 1935, c. 39.

¹⁶⁸S.O. 1952, c. 56.

¹⁶⁹S.O. 1956, c. 51.

¹⁷⁰S.O. 1960, c. 67.

patients who would benefit could be employed and paid for their work. 171 In the same year authorization was given to the superintendent to give leave of absence to his patient.

In 1962 an attempt was made to broaden the base of mental health care with the creation of mental health centres.¹⁷² These were to be under the charge of a physician and to provide facilities for examining, diagnosing, and treating those with mental disorders mainly on an outpatient basis.

In 1966 Boards of Review were created. 173 Appointed by the Lieutenant Governor in Council for specific institutions, they were to consist of not more than five persons, including two psychiatrists and one lawyer. Patients, their friends, or the Minister of Health could request a hearing from this Board as to the patient's fitness to be released, either unconditionally or into custody.

Conclusion

It has been the purpose of this chapter to trace the evolution of legislation affecting the provision of health services in Ontario. We have seen that this legislation has not sought to establish a highly centralized system of public control over these services; rather, it appears to have been motivated by a need for public intervention in regard to specific problems which could be dealt with only by the public authority. Thus we find the government legislating to protect the public from dangerous practitioners and to provide public health services which could not be provided by private practitioners or by private institutions without public support.

The principle underlying the regulation of practice is clear: organized practitioners themselves were to be entrusted with the responsibility for ensuring the competence and reliability of practitioners in their own particular fields. The machinery for this function was provided by the colleges of practice, to which were delegated powers to exclude unqualified practitioners, to oversee the education of students, and to discipline members. The most conspicuous problem in implementing this system of self-regulation was in defining the practice itself in each case. To the extent that this judgment had to be based on "professional" opinion, it was evident from the outset that differences would arise over who was competent to give the necessary advice. Thus the dissatisfaction of non-orthodox practitioners in the field of medicine with the attitude of physicians towards them has remained a chronic problem to this day; and there is a similar problem in defining nursing, optometry, and the other recognized occupations in the field of health.

The other conspicuous feature of the approach to self-regulation outlined here has been its lack of central control. Because the legislation was particular to each group granted recognition, it was inevitable that there be little, if any, central

¹⁷¹S.O. 1961-62, c. 79.

¹⁷²S.O. 1961-62, c. 81.

¹⁷⁸S.O. 1966, c. 88.

coordination of the processes assigned to each regulatory body. The legislation in this respect served to isolate the different occupations by emphasizing their independence and by drawing upon their members' sense of professional pride for its effectiveness.

With regard to both public health and hospitals, the legislation reflects again a preference for minimizing direct provincial government control of health services, with as much of the responsibility as possible being delegated to municipal authorities and to private institutions.

The history of health legislation in Ontario sketched in this chapter shows no break in the application of these fundamental principles. Yet the increasing complexity of the health field and the simple growth in its dimensions have, especially since World War II, made them less and less visible. As occupations in the health field have proliferated, the traditional college of practice approach to regulation has become stretched to its limits, and the need for other forms of regulation has become apparent. The increasing involvement of publicly financed educational institutions in the education of health workers has made possible a new avenue of direct public control of standards of training for many of the older as well as the newer occupational groups. Public responsibility for manpower planning also has rendered the traditional forms of recruitment and training less satisfactory than they were in the past.

Similarly, in public health and hospital legislation, the institution of large-scale programs of preventive medicine in school and community health, and the direct involvement of the provincial government in the financing of hospital and health services in recent decades have led to so great a quantitative change in the public role as to suggest that a transformation in the traditional concept of public involvement in the health services is now under way.

Chapter Four The Institutional Structure of Health Services

Health services in Ontario have been shaped by a number of forces. In Chapter 5 we discuss the part played by the economic structure within which those services are provided. For our present purposes we content ourselves with observing that ordinary price and market mechanisms have not been as influential in shaping the health system as they have in many other parts of the economy. As a consequence, government has played an increasingly important part, not only in allocating the total quantity of resources to health services, but also in determining the mix of resources within the health system.

The health disciplines themselves, through their regulatory bodies and their voluntary associations, also exert considerable influence. Although subject to many government controls, hospitals, too, are powerful institutions in the health system and utilize a major portion of available health resources; both human and monetary.

Other organizations concerned with health, such as the Canadian Arthritis and and Rheumatism Society and the Canadian National Institute for the Blind, act as pressure groups to direct attention and resources to their particular sector of the health field. Funds of such groups, whether government grants or private donations, may be directed to research, or to providing services not otherwise available to those suffering from a particular disease or handicap. Still other organizations, such as consumer or labour groups whose primary concerns are not related to health, may develop strong stands on particular issues in this field, making their positions known to the appropriate agencies through briefs, public statements or private consultations. The initial proposals for universal health insurance, for example, brought strong reaction from a number of such groups.

One of the chief characteristics of Ontario's health care system then is the diversity of institutions which have some role and influence in the provision of health care, among which there has been minimal communication or cooperation. Indeed, perhaps the most serious deficiency of the health system is the lack of coordination among the elements of the system.

The Government Sector

Increasingly in modern times government has accepted an enlarged responsibility for ensuring adequate health standards. It has become directly involved in the provision of health services (particularly in mental and public health) and indirectly involved in the introduction of measures to regulate many health disciplines, as well as institutions such as hospitals and nursing homes. More recently, by the introduction of public insurance programs for hospital and health services, total resource allocation for health services has fallen more and more into the hands of government. But even within the government, the jurisdictions and agencies involved with health are many: federal, provincial and municipal governments are all concerned with different aspects of health programs.

As we have shown in Chapter 3, during the nineteenth century there was little direct governmental support or control of health services. As the demand for such services increased in the twentieth century, neither private institutions nor the provinces alone could continue to support all the necessary programs without some financial assistance from the federal government.

The main functions of the federal government have been to make available to the provinces advisory services in health matters and to provide financial assistance through grant-in-aid programs, such as the Hospital Insurance Program, the National Health Grants Program and more recently the Public Medical Care Program. With the implementation of health programs remaining as the responsibility of ten different provinces, it is difficult for the federal government to establish or enforce any national health standards. For example, the provinces have not been obligated to participate in the federal grant-in-aid programs; indeed, although grants for the medical care insurance program were first made available in July 1968, Ontario did not join until October 1969. On the other hand, the federal government is directly responsible for providing health services for certain categories of persons including mariners, Indians and Eskimos, immigrants, air pilots and other air personnel, and for regulating hygienic standards on federal property and interprovincial common carriers.

Federal Government

The Department of National Health and Welfare administers most of the federal government programs in the health field. The Medical Research Council administers the major portion of funds available for medical research in Canada (although the Defence Research Board also administers some medical research programs). The Departments of Veterans Affairs and National Defence are responsible for treatment programs provided for veterans and for the Armed Services, respectively. The Dominion Bureau of Statistics is responsible for collection, analysis and publication of National Health statistics. The Department of Agriculture has certain health responsibilities connected with food production.

The work of the Department of National Health and Welfare is divided between direct service programs and grant-in-aid or advisory programs to the provinces. Among the direct health programs are those carried out under the jurisdiction of the Medical Services Branch, by means of which medical services are provided to persons outside the jurisdiction of provincial health departments.

The Food and Drug Directorate is responsible for control and inspection of food, drugs, cosmetics and medical devices. The Directorate also determines those persons who may prescribe or dispense certain classes of narcotic drugs, including physicians and pharmacists; and it requires that complete records of the distribution of these drugs be maintained. An adverse drug reaction reporting program is conducted by the Directorate in conjunction with the medical profession, and additional information on drug reactions encountered in other countries is made available through the World Health Organization.

The Health Insurance and Resources Branch administers the grant-in-aid programs. These include the Health Resources Fund, the National Health Grants program, Hospital Insurance and Diagnostic Services program, the Health Facilities Design program, and the Medical Care program. All of these programs require that certain conditions be met by the provinces, after which the federal government will provide financial assistance according to an established formula.

The Health Resources Directorate administers the Health Resources Fund and also acts as a coordinating agency on matters related to health manpower and education. The Directorate is attempting to collate information from the health disciplines themselves, as well as from the provincial governments, in order that it may become a centralized source of information and a clearing house on such matters. The Directorate is undertaking studies on health delivery systems and is working also towards the establishment of national health goals. Several national conferences have been sponsored by this agency, including the National Health Manpower Conference in October 1969, a joint project of the Department and the Association of Universities and Colleges of Canada, which brought together representatives of federal and provincial governments, the health professions, and other health and consumer groups. This conference not only examined future needs for health personnel, but also considered new ways of delivery of health care and the roles which might be assumed by various health disciplines.

Advisory services to the provinces are provided by the Health Services Branch on matters of public health, including medical rehabilitation, treatment of mental illness, and health education programs.

The Department of National Health and Welfare is responsible also for radiation protection and carries out radiation surveys. It is the principal health adviser under the Atomic Energy Control Regulations in the review of applications for radio-isotope licences.

Primary responsibility for funding medical research belongs to the Medical Research Council established in 1960. Most of the Council's funds have been allocated to projects involving fundamental research in the basic medical sciences, although some clinical research has been supported. Projects supported by the National Research Council may include investigations relevant to health. For example, the Council's Committee on Dental Research administers grants for

dental research and for training of dental research personnel. Support for research in the prevention of disease, in epidemiology, and in environmental health is provided by the Department of National Health and Welfare.

The Defence Research Board sponsors both intramural and extramural research on medical problems of defence interest and supports a program in aviation medical research at McGill University. The Department of Veterans Affairs undertakes medical and dental research on matters related to aging, while research funds for training researchers and scientists in children's diseases are made available by the Queen Elizabeth II Fund established in 1959.

A coordinating agency between the federal and provincial governments is the Dominion Council of Health. This Council was established in 1919 to advise the Minister of National Health and Welfare on matters relating to the promotion and preservation of the health of the people of Canada. The chairman is the Deputy Minister of National Health, and members include the Deputy Minister or Chief Health Officer of each province, as well as five persons appointed by the Governor in Council for a three-year period. The Council meets twice a year, and various federal-provincial committees of a technical or advisory nature support and supplement its activities. At the National Health Manpower Conference held in Ottawa in October 1969, it was suggested that the present Council be replaced by one which would also represent consumers and suppliers of health services, and which — with the assistance of appropriate staff and funds — would advise the federal government of trends and priorities on all matters relating to health.

Provincial Government

At the provincial level, responsibility for health matters lies primarily with the Department of Health and its agencies, including the Ontario Hospital Services Commission. As well the Departments of Education and University Affairs have become increasingly involved in the education of the health disciplines personnel. The activities of the Department of Health may be categorized in three major functions:

- 1) Direct programs, including public health and mental health services.
- 2) Grant-in-aid programs, such as grants to hospital and health insurance programs.
- 3) Supervisory or regulatory responsibilities, which would include activities relating to the regulatory agencies for the health disciplines.

A Provincial Board of Health was established in 1882 upon passage of the first Public Health Act in Ontario. The Department of Health replaced the Board in 1923, and a separate Department of Hospitals was established in 1930 under the direction of the Minister of Health. The two departments merged in 1934. Then in 1957 the Ontario Hospital Services Commission (OHSC) was created, and responsibility for hospitals, except mental hospitals, was transferred to the Commission, an administrative agency reporting to the Minister of Health.

When the province established a medical insurance plan in 1965, the Ontario Medical Services Insurance Division of the Department of Health was created. It was superseded in October 1969 by the Ontario Health Services Insurance Division which is responsible for the personal health plan (OHSIP) now in effect in Ontario.

The Health Insurance Registration Board, created in 1967, acts as a central enrolment and premium collection agency for both OHSIP and OHSC, and it also maintains a central registry and records of insured persons. The Board is not part of the departmental administration but reports directly to the Minister of Health. The members of the Board are the Deputy Minister of Health, the chairman of the OHSC, and the executive director of OHSIP.

Four other agencies established by the provincial government also report through the Minister of Health to the Legislature but are administratively independent. These are the Alcoholism and Drug Addiction Research Foundation, the Ontario Mental Health Foundation, the Ontario Cancer Treatment and Research Foundation, and the Ontario Cancer Institute. All are supported primarily by provincial government funds. In addition the Minister of Health is responsible for the legislation establishing the regulatory agencies for health disciplines. A complete list of the legislation under the Minister of Health is given in Table 4.1.

The Department of Health

The administrative responsibilities of the Department of Health are allocated among three divisions: Mental Health, Public Health and Health Services Insurance. A fourth division, Financial and Administrative Services, provides staff support to the Department.¹

TABLE 4.1 Legislation, Department of Health

Part 1 Public Health Legislation

The Public Health Act and

Regulations respecting:

Camps, works and Premises and the Employers and workmen thereof in territorial districts without municipal organization

Capital Grants for Community Health Facilities

Communicable Diseases

Community Health Services Regulations

Food Premises

¹See Figure 4.1.

Free Supply of Insulin

Frosted Food Locker Plants

Grants for Dental Inspections in Schools

Health Units

Milk Pasteurization Areas

Milk Pasteurization Plants

Public Swimming Pools

Oualifications of Medical Officers of Health, Sanitary Inspectors and Public Health Nurses

Summer Camps

Slaughter Houses and Meat Processing Plants

The Department of Health Act, 1968-69

The Fluoridation Act

The Homes for Special Care Act and Regulations

The Maternity Boarding Houses Act

The Municipal Health Services Act

The Nursing Homes Act, 1966 and Regulations

The Pesticides Act, 1967 and Regulations

The Sanatoria for Consumptives Act and Regulations

The Silicosis Act and Regulations

The Venereal Diseases Prevention Act and Regulations

Mental Health Legislation

The Children's Mental Health Centres Act, 1968-69

The Children's Mental Hospitals Act, 1960-61 and Regulations

The Mental Health Act, 1966

The Private Sanatoria Act

The Psychiatric Hospitals Act

The Hypnosis Act and Regulations

Part 2

The Ambulance Services Act and Regulations

The Hospital Services Commission Act and Regulations

The Private Hospitals Act and Regulations

The Public Hospitals Act and Regulations

The Health Insurance Registration Board Act, 1968-69 and Regulations

Part 3

Associated Legislation

Administered by Foundations and other Statutory Boards or Authorities

Foundations

The Alcoholism and Drug Addiction Research Foundation Act, 1965

The Cancer Act

The Ontario Mental Health Foundation Act

State Register (Professional) Legislation

The Chiropody Act

The Dental Technicians Act and Regulations

The Dentistry Act and Regulations

The Drugless Practitioners Act and Regulations

Boards set up under the above Act

Board of Directors of Chiropractic

Board of Directors of Drugless Therapy

Board of Directors of Masseurs

Board of Directors of Osteopathy

Board of Directors of Physiotherapy

The Embalmers and Funeral Directors Act and Regulations

The Medical Act

The Nurses Act, 1961-62 and Regulations

The Ophthalmic Dispensers Act and Regulations

The Optometry Act and Regulations

The Pharmacy Act and Regulations

The Psychologists Registration Act

The Radiological Technicians Act and Regulations

Other Legislation

The War Veterans Burial Act The Human Tissue Act, 1962-63

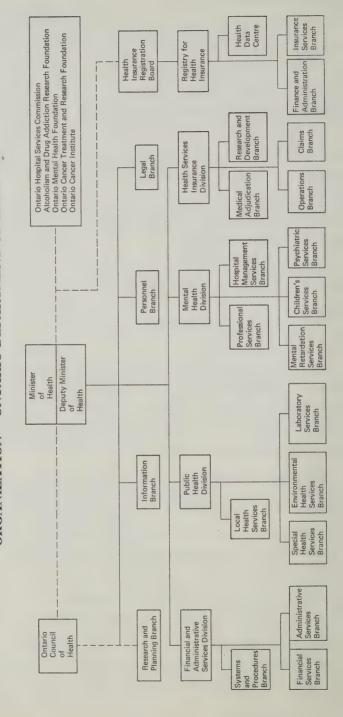
The Mental Health Division. The Mental Health Division is responsible for all aspects of planning, development and operations of the provincial mental health program. This includes the operation of sixteen provincial mental hospitals and nine training facilities for the retarded, as well as coordination of all resources for prevention, diagnosis, treatment or training, and rehabilitation with respect to mental illness and mental retardation.

The Public Health Division. The Public Health Division works in cooperation with local health agencies to provide health protection and prevention programs. It is responsible for the administration of a wide range of public health legislation.

The Local Health Services Branch maintains five regional offices where assistance and consulting advice on public health programs is available to local health agencies. Part of its task has been to provide leadership through these regional offices in the amalgamation of local health units and departments into district health units. The Environmental Health Services Branch is responsible for programs to minimize environmental health hazards, while the Special Health Services Branch provides advisory and consultative assistance to local health authorities, private physicians, and other government departments on matters such as drugs and biologicals, epidemiology, communicable disease control, maternal and child health, medical rehabilitation and chronic care, nutrition and prevention of tuberculosis.

FIGURE 4.1

ORGANIZATION—ONTARIO DEPARTMENT OF HEALTH



A central laboratory in Toronto and fourteen regional laboratories come under the jurisdiction of the Laboratory Services Branch. These facilities offer laboratory services to local health agencies and to private physicians and hospitals.²

Health Services Insurance Division. The Health Services Insurance Division is responsible for the administration of the Health Services Insurance Plan in Ontario. A Research and Development Branch within the Division collects and analyzes health insurance data, enabling a comparison to be made between the Ontario plan and those in other jurisdictions. Cost-benefit studies regarding extension of benefits also are undertaken, as well as studies regarding various forms of usage of health services.

Research and Planning Branch

A departmental Research and Planning Branch was created in 1966 reporting to the Deputy Minister. This branch undertakes research and planning studies for the Department and for the Council of Health on such matters as manpower, resource allocation and community health services. It compiles and maintains a register of health research projects being carried out by other agencies and universities in Ontario, sponsors and supports extramural health research projects through research grants, and administers the grants from the Health Resources Fund. Health statistics on various types of diseases and on mental health are compiled by the Branch, while Health Library Services also are under its jurisdiction.

The development of such a branch has been an important step in providing information to the Department to assist in developing policies regarding future health patterns and the needs for various types of health personnel.

Ontario Council of Health

The creation of the Ontario Council of Health in 1966 has resulted in increased planning and research into health services, and greater coordination of programs and policies of the Department with other agencies and the health occupations.

The Council of Health is the senior advisory body on health matters to the Minister of Health and through him to the Government of Ontario. It is concerned particularly with the coordination of health services, techniques for long-term planning, priorities in phasing, health resources development and maintenance, health manpower and health manpower requirements. Matters may be referred to it by the Minister of Health, or studies may be initiated by the Council itself. There are seventeen members of the Council, including the chairman of the Ontario Hospital Services Commission as an ex officio member. The Deputy Minister of Health is chairman of the Council. Five of the members represent the key health professions (medicine, dentistry, nursing, pharmacy and hospitals),

²This information is taken from Ontario Department of Health, 44th Annual Report for the Year 1968, p. 11.

five represent public interest groups, and five are chosen by the Minister of Health for their particular knowledge in the broad field of health and health services.

The Council has developed committees to study particular aspects of health, and through the committees and their various subcommittees it has permitted a wide range of persons of various skills to have a voice in and participate in the development of provincial health programs. The seven primary committees are

Health Care Delivery
Health Manpower
Education of the Health Disciplines
Physical Resources
Regional Organization of Health Services
Health Research
Health Statistics Library Services

An Executive Committee coordinates the activities of all the other committees and advises on priorities and phasing. In addition, as it meets more frequently than the entire Council, it accepts particular assignments on urgent matters. A small secretariat is attached to the Council to provide administrative support, and the Council may call upon the staff and facilities of the Research and Planning Branch for assistance as required. It also uses outside expertise and agencies for research studies when necessary.

The Ontario Hospital Services Commission

The Ontario Hospital Services Commission is a powerful force in the structure of health services. Created by the Hospital Services Commission Act, 1957, it administers the Public Hospitals Act and Regulations as well as the Private Hospitals Act and Regulations. It is an independent Commission and reports to the Legislature through the Minister of Health. The Commission consists of seven members, including a full-time chairman, a full-time Commissioner of Hospitals and Commissioner of Finance, the remaining commissioners serving on a part-time basis.

The Commission is responsible for the development of an integrated hospital system across the province and the administration of the Ontario Hospital Insurance Plan. It does not own or operate hospitals directly. But it approves the establishment of hospitals and related facilities, determines and pays grants for hospital construction and maintenance, determines and pays hospital amounts for insured services under hospital care insurance, controls charges made to patients by hospitals, establishes and operates institutes for the training of hospital and related personnel, and conducts research programs and surveys. The role of hospitals and the Commission is discussed at greater length in Chapter 7.

The Commission itself is responsible for the development of administrative policy, but matters of general policy such as changes in the premium structure require Cabinet approval. The Commission is responsible for ensuring an adequate

supply of beds for active, convalescent, rehabilitation and chronic care, and has developed programs to assist in the determination of bed needs at community, district and regional levels. Because the Commission approves the budgets of hospitals and provides the major source of income to them, it plays an important role in shaping the type of service which will be available in hospitals in Ontario. It also provides guidelines regarding wages and salaries for hospital personnel; these have an impact on the numbers who may enter a given occupation and the level of service which a hospital may offer. Recent arbitration boards constituted under the Hospital Labour Dispute Arbitration Act³ have not always accepted the Commission guidelines and have in some cases recommended different wage or salary levels.

The research function of the Commission, apart from hospital planning, is centred on utilization studies of various personnel in the hospital, as well as on the accumulation of data regarding manpower and services in hospitals.

The Minister of Health is responsible for legislation establishing the regulatory bodies for health personnel. While many of the professions granted self-government under such legislation elect their own boards and administer their own acts, changes in the legislation must be approved not only by the Minister of Health, but also by the Cabinet and then passed by the Legislature. The regulatory bodies for some of the disciplines may make regulations without obtaining government approval; others require only that the regulations be published in the *Ontario Gazette*. For some groups, such as those under the Drugless Practitioners Act, the Minister of Health is responsible for appointing the governing boards, usually upon recommendation from the voluntary associations. The Minister is also a member of the council of the College of Physicians and Surgeons, and a member ex officio of the councils of the Royal College of Dental Surgeons of Ontario, and the College of Nurses.

The Department of University Affairs

The Department of University Affairs and the Committee on University Affairs, although relatively new, have become important loci of power in the health field, since they approve educational facilities for much health manpower.

The Committee on University Affairs is not established by legislative authority, but is a Committee advisory to and appointed by the Minister of University Affairs. The Committee, appointed in 1961, grew out of the government's need since the 1940's to retain advisers on the development of higher education. The Committee now consists of a full-time chairman and usually eleven part-time members, about half of whom are appointed from academic circles and the remainder from other segments of society. The Committee receives staff support from the Department of University Affairs. It advises the Minister on general

³S.O. 1965, c. 48.

questions of policy affecting both operating and capital funds for provincially supported universities, as well as on matters of special concern relating to universities where there may be no established government policy.

The development of new educational programs in the health field at any university, the establishment of new faculties or schools including schools of health science, and indeed the creation of new universities must be approved by this Committee insofar as additional funds will be required for their operation. But it does not initiate such developments.

The Committee, too, is responsible for developing methods of financing universities and has recently implemented a formula financing method for allocating operating grants to Ontario universities. While the grants are made on the basis of the size and expressed needs of the university, the Committee does not have the power to require that operating funds be spent in any particular way. The universities are relatively autonomous in their actual distribution of funds within the university itself, and can decide the amounts which should be given to the health sciences vis-à-vis other disciplines taught in the university. Capital grants approved by the Committee are allocated for specific projects, however, and must be spent accordingly.

The universities themselves play an important role in the development of the health disciplines. They decide upon the funds which will be made available to the health sciences and consequently determine the numbers which may be enrolled. While the government can request a university to establish a school in a particular discipline, and may assure the university that funds would be forthcoming for such a school, it is for the university to decide whether or not it will undertake such a project.

The Department of University Affairs executes policies of government which may be established upon the advice of the Committee on University Affairs. It also approves the design of new facilities, administers the Student Award Program, and reviews the annual budgets of the universities.

The Department of Education

Educational programs for non-university trained health disciplines are carried out in proprietary colleges, hospitals, regional schools affiliated with a hospital, provincial Colleges of Applied Arts and Technology, or secondary schools. The latter two types of institutions come under the jurisdiction of the Ontario Department of Education, which thereby plays an increasingly important role in the education of health manpower. Legislation enabling the establishment of Colleges of Applied Arts and Technology throughout Ontario was passed in 1965. The Department of Education provides the funds for the operation and capital requirements of these colleges.

The Ontario Council of Regents for Colleges of Applied Arts and Technology is appointed under the Department of Education Act by the Minister of

Education, to assist the individual colleges in the planning, establishment and coordination of programs of instruction and services. The Council is composed of fifteen members from various parts of the community, who are appointed for a three-year term. The Council relies upon staff from the Applied Arts and Technology Branch of the Department of Education to provide the background information upon which it must base its decisions. All new programs must receive approval of the Council, which tries to assure that such programs will comply with the requirements of voluntary organizations concerned, and with the needs of employers and the community. For example, the Council has issued guidelines for establishing courses in medical technology by colleges; such courses usually are undertaken in affiliation with local hospitals and professional associations such as the Ontario Medical Association (OMA) or the Ontario Society of Medical Technologists. Each college establishes the format and content of courses to meet its own needs, and an advisory committee is appointed by the Board of Governors for each branch of a program of instruction offered in the college.

Few programs in the health field are offered at the secondary school level. However, some programs for registered nursing assistants or dental assistants may be taken concurrently with completion of a secondary school diploma. Any such special courses come under the jurisdiction of the Department of Education and are guided by departmental personnel.

The Senior Coordinating Committee

An important coordinating agency at the provincial level is the Senior Coordinating Committee. This Committee was established officially in April 1966, and was originally composed of the Deputy Ministers of Health and University Affairs, and the chairman of the Ontario Hospital Services Commission. In June 1969 the Department of Education was included, represented by an Assistant Deputy Minister of Education. The purpose of this Committee is to coordinate the government's activities in the development of health resources for education, training and research, and to approve projects submitted for grants from the National Health Resources Fund. Resource personnel are provided by each of the agencies as required, and a technical working party, chaired by the Director of Research and Planning of the Department of Health, prepares most of the information for the Committee's deliberations.

The Committee must approve all capital projects relating to the development or expansion of educational facilities in the healing arts. These include projects at universities, teaching hospitals, and nursing schools; and as more educational programs for health personnel are introduced in Colleges of Applied Arts and Technology, it is expected to become involved with these institutions as well. While projects requiring capital funds are the primary concern of the Committee, it must also approve other educational programs which may not immediately require capital grants for their introduction. Thus, all plans for the education of health manpower in the province come under the purview of one agency; this should eliminate duplication of facilities and result in better planning of such programs.

In connection with its work the Committee has developed long-term forecasts of needs for capital facilities for the education of health disciplines and health research. In October 1967, the Deputy Minister of Health stated that these needs would exceed \$700 million in the next eight to ten years.4 These capital expenditures will also entail considerable operating costs of a continuing nature. The province agreed to underwrite the cost of the capital program, a part of which would then be recovered from the Health Resources Fund.

At the federal level, legislation establishing the Health Resources Fund was passed by the House of Commons in June 1966. The fund is to provide assistance to provinces in meeting the capital costs of constructing, renovating, acquiring, and equipping health training and research facilities. A sum of \$500 million has been appropriated for contributions of up to 50 per cent of those costs during the fifteen-year period 1966 to 1980. The fund is divided into three parts:

1) Three hundred million dollars, allocated to provinces on a per capita basis.

2) Twenty-five million dollars, a special additional allocation to the

four Atlantic provinces for joint projects.

3) One hundred and seventy-five million dollars, allocated by the Governor in Council.

The money is being spent on new and improved health training and research facilities, which are defined in the Act as schools, hospitals or other institutions, or any portion thereof, for the training of persons in the health professions or any occupations associated with the health professions, or for conducting research in the health fields.

The costs of planning and designing the facility and of all basic equipment required for its operation also are covered by the Fund, but costs of land, interest charges, operating costs, and residential accommodation are excluded.5

A Health Resources Advisory Committee was set up under the Act to advise the Minister of National Health and Welfare. The Committee consists of the Deputy Minister of National Health as chairman and one member appointed by the Lieutenant Governor in Council of each of the ten provinces. For Ontario the Deputy Minister of Health acts as the representative on this Committee. The Health Resources Advisory Committee approves all projects and also approves the five-year plans, which must include all projects for which grants will be requested from the Health Resources Fund.

Of the \$300 million allocated from the fund to the provinces on a per capita basis, Ontario will receive \$104.3 million. Obviously this cannot begin to meet

⁴The Methodology in Ontario to Provide a Continuing Appraisal, Dr. K. C. Charron, Deputy Minister of Health, Ontario, speech to the 43rd Annual Convention of the Ontario Hospital Association, Royal York Hotel, Toronto, October 25, 1967. Department of National Health and Welfare, Health Resources, Brochure, 1968.

50 per cent of the Ontario requirements for health facilities. In 1968 the province, in fact, announced a cut-back on its projected spending after the federal government warned that each province could call upon only one-fifteenth of its share of the \$300 million in each year of the fund's operation. In July 1969, however, the province announced it would go ahead with the development of health sciences centres in Ontario and would use part of the monies being made available by the federal government under the national medical care insurance program to support these projects.

Local Government

Local government responsibility for health is centred on public health programs. While for some years each municipality has had its own public health officer and developed its own programs, in the last few years the province has been trying to combine these local units into larger districts in order to provide more comprehensive public health services over a wider area. The Department of Health proposed that twenty-nine district health units be formed throughout the province. By the end of 1969, twenty-four of these had been formed including four nucleus units. A stimulus to their formation was the development of a 75 per cent grant for approved public health programs undertaken at the district level. Amalgamation of local health units into larger units also makes possible the utilization of more full-time personnel.

Local health programs may include such services as immunization clinics, well-baby clinics, school health services, dental programs, mental health rehabilitation programs, home care services, and distribution of publications and visual aids regarding public education. Inspection services for food and water also are carried out by local public health inspectors.

Voluntary Associations and Regulatory Bodies

At present many regulatory bodies have jurisdiction not only over entrance requirements to the discipline itself, but also over entry to educational institutions for the discipline and over curriculum and standards of such institutions.

Colleges such as the College of Physicians and Surgeons of Ontario, or the Royal College of Dental Surgeons of Ontario, which have been granted licensing powers, have a responsibility to maintain the standards of practice of the discipline. To the extent that the imposition of standards that are too high may make the professions unattractive or too difficult to enter, the Colleges exercise an influence on manpower supply. The regulatory body also has jurisdiction over licensing of foreign graduates, and if standards are too stringent, immigrants will be unable to be licensed in Ontario. In most cases such regulatory agencies have been, to date, subject only to the most cursory reviews by the Department of Health.

The councils of such colleges are powerful forces within the discipline. As a result of the policies they develop, they can determine the discipline's relation-

ships with other groups. The same may be said of the executives of voluntary associations who, by expressing official views on matters of interest to them, thereby commit the discipline to a specific attitude on health policies.

Voluntary associations are invariably insistent that they should be consulted by the government on matters concerning their discipline. The development of regulations regarding the registration of x-ray equipment was an instance where all the groups concerned, including physicians, radiological technicians, chiropodists, chiropractors and dentists, through their voluntary associations, were given the opportunity by the Department of Health to state their opinions on the proposed regulations. The Ontario Medical Association has stated publicly that there have been occasions when such consultation was lacking. But the official attitude of a voluntary organization rarely reflects the views of every practitioner. An example is the attitude of the medical profession towards chiropractic. Traditionally the Ontario Medical Association does not condone referrals by physicians to chiropractors. The Committee is aware, however, that some physicians do refer patients to chiropractors from time to time for specific manipulative treatment.

Hospitals

Hospitals not only provide diagnostic, curative and rehabilitative services; they are involved in the education of many practitioners of the healing arts, through either hospital internship programs or direct teaching programs. As many of the occupations in health technology and health therapy were developed in the hospital, it is only natural that the hospital should have been the place where the first organized educational programs for them started. In the past these educational programs have included a large service element. Consequently the students have not always had adequate opportunity to concentrate on the broader educational aspects of the program. This may have been instrumental in discouraging young people from entering these occupations. The most obvious example is nursing, where the service element and cloistered atmosphere of hospital schools appeared to contribute to the decreasing percentage of young girls enrolling in nursing. Only in the past few years has the Department of Health developed a policy of establishing regional nursing schools. These schools, still under the auspices of the Ontario Hospital Services Commission, are operated independently of any single hospital. The required clinical experience is undertaken in one of the participating hospitals, but is still under the jurisdiction of the regional school.

In addition to their role in education, hospitals have been involved indirectly in the regulation of some of the senior health professions. Physicians, for example, require hospital privileges if they are to provide proper care for their patients, or practise most types of surgery. Those who have such privileges, however, are subject to the scrutiny and discipline of the Medical Advisory Committee of the hospital.

It is within the hospital, where large numbers of many of the health occupations are employed, that the roles of these groups become most clearly defined. It is also within the hospital, therefore, that experimentation may be encouraged to assess necessary changes in roles and relationships among the health disciplines.

Special Interest Groups

Special interest groups also may be a substantial force in the health system. These groups range from the Canadian Red Cross, to the Canadian Pharmaceutical Manufacturers Association, and may include labour organizations and political parties. All may have an interest in health services and may become pressure groups when they wish to comment on current health policy or to promote individual projects of concern to them. While in Ontario there is not the same degree of active lobbying which exists in the United States, groups which represent important elements of society are able to gain easy access to the government through local members, ministers of various departments, or political advisers. While there are many groups in the health field interested in all aspects of health legislation, there are others which wish only to make their views known on matters of particular interest to them. Usually no formal channels exist for their views on health issues to reach the government, except when Royal Commissions such as this Committee or Select Committees of the Legislature, appointed to study particular issues, invite submissions from the public.

Individual Influences

One factor which does not emerge from the foregoing review is the impact of particular individuals in the health system. There are some senior members of each health discipline whose influence is great within the discipline, and who may be found on the Councils of the regulatory agencies or are executive members of voluntary organizations; who may also be members of the Council of Health or its subcommittees, or of federal advisory committees on health matters; and who may represent the discipline on interdisciplinary committees, or be influential in hospital circles or in the academic world. Such persons may be practitioners or educators, or have had experience in both areas. It is such persons who become the spokesmen for the discipline and must be considered as important sources of power within the health field. They often influence the position that a discipline may take on the need for change or the introduction of new methodologies and patterns in practice or education. As a result of their participation and influence in so many areas, they also become coordinators and communicators within the discipline, and between the discipline and other disciplines, the discipline and educational institutions, and the discipline and government.

The Locus of Power

In recent decades the number and complexity of institutions directly involved in the health field have increased rapidly. In Chapter 3 we outlined the evolution of legislation governing the health sector, and the way in which public authorities have found

it necessary to extend public control of the provision of health services in the interests of maintaining high standards of competence and protecting the public.

Since the 1950's the development of public insurance programs for both hospital and health services has further involved the government in policy-making and financing related to health care. With the coming of OHSIP the inevitable implication is that government must assume the responsibility for ascertaining that sufficient quantities of insured health services are available to meet social needs. It is, for example, difficult for a government to justify compulsory contributions to a health care program on the part of persons for whom, for geographic or other reasons, no care is available without recognition of a corresponding responsibility to see that health care services are made available.

Thus governments at all levels have evolved new agencies designed to facilitate health planning which have become influential in decision-making. At the same time educational and voluntary bodies have evolved new institutional means of participating with governments in the process of health policy formulation. Many of these new agencies, both public and private, have emerged, however, on an ad hoc basis in response to particular and pressing problems, and have not developed into a coordinated or effective institutional structure. We believe this to be the major overriding problem of organization in this field; and in Chapter 24 we analyze it in greater detail, making specific recommendations towards its solution.

The point we wish to emphasize here is that the locus of power in the health field is diffuse and includes such bodies as professional licensing organizations, voluntary associations, educational institutions, accrediting agencies, and medical and other committees of hospitals; but it is increasingly apparent that primary responsibility for shaping the health care system, and ultimate responsibility to the people for maintaining the quantity and quality of health services, has now passed to the government.

Chapter 5 The Economic Structure of the Health Sector

The Economic Problem and the Economic Structure¹

The economic problem of providing health care, like that of providing other commodities, involves determination of the amounts of a society's limited manpower and other resources that are to be used for producing health care, the direction of these resources to production of kinds of health care that people wish both individually and collectively, and the efficient organization of the health resources to provide the maximum amount of health care attainable within the limit set by the amount of resources themselves. It must be determined, in some way, what kinds of health goods and services should be produced, and in what quantities and qualities; how they should be produced; and to whom they should be provided. As in any sector of the economy, there are in the health sector inputs of labour services, such as those of physicians, dentists and nurses, and there are inputs of capital goods services, such as those that are evident in the use of hospitals and other physical plant and equipment. These inputs are used to produce better health for members of the general public, the consumers of the health care services. The economic structure of the health care sector is taken to mean the organizational apparatus for determining the nature and the quantity of the inputs, both human and non-human; the allocation of these inputs for the provision of particular types of health services (the output of the health sector) and the distribution of these services among various members of the community; and the way in which different inputs are combined and organized to produce the desired basket of health services.

In our mixed economy, these economic matters, which are pertinent to the production of all commodities, are determined within the legal and other institutional framework of our society, partly in the private or market segment of the economy and partly in the public or government sector, in proportions that vary substantially among different types of commodities. Food, for example, is produced almost entirely in the private part of the economy; education is provided mainly in the public part. In the provision of health care, both the private and the public segments play important parts. The economic structure of both the private and the public economies is affected substantially by non-market private

¹The reader is referred to a study commissioned by the Committee and published as a separate volume for a further discussion of this subject. See R. D. Fraser, Selected Economic Aspects of the Health Care Sector in Ontario, Committee on the Healing Arts, Queen's Printer, Toronto, 1970.

and public institutions and institutional forces. The output of health care is more subject to the influence of institutional factors such as non-profit organizations, quasi-private regulating and licensing bodies, and voluntary professional associations than have been many other segments of the economy.

While the economics of health care has much in common with the economics of the provision of other commodities, we should note at the outset one way in which the health sector differs from most other sectors of the economy. The consumers of health services, those receiving health care, are not good judges in their own right of the quality and effectiveness of the many of individual specific health services being provided to them.² There are two consequences. First, individuals frequently cannot judge for themselves what specific kinds of health care services they need. They must rely on the judgment and the advice of the members of the health professions — and particularly of the senior professions — on what kinds of health services they should obtain. In contrast, the adult consumer himself, though he may seek some advice from others, and though he may be influenced by advertising, chooses, on the basis of his own knowledge and of his own judgment of the benefits that they will provide to him, most other goods and services which he consumes. Second, since the consumer often must rely on the judgment of others about what specific health services would be to his benefit, he must be assured that his counsellors, who are also the providers of the services, are qualified to advise and treat him. Accordingly, the state has attempted to assure to the individual that the providers of health services, whether they be members of the senior professions, or institutions such as hospitals, have some minimum qualifications, and maintain some minimum standards and that they will act in a way to benefit the recipient of the health care. Consequently there are the licensing, regulatory and disciplining bodies for the professions and there are the licensing and regulation of hospitals and other institutional providers of health services. Freedom of choice of the consumer, then, is a matter of choosing the persons or institutions of the health sector to whom he will go for advice and treatment. It frequently does not involve, as it does for so many other commodities, the choice of particular goods or services on the basis of one's own knowledge of their benefits to one. This feature of health care has most important implications for the economic structure of the health care sector.

This chapter is devoted to the nature of the economic structure for the provision of health care and some of the consequences of this structure. Attention is centred on the way in which the types of health goods and services to be provided to the general public are determined and on the organizational structure that determines the way in which the manpower and capital inputs are used

²We wish to make it clear that here we are speaking about a specific health treatment received by an individual or family. We are not speaking of matters such as a public health service or the availability of a range of health care services, in which cases individuals can form reasonably good judgments. But the ability of the individual to evaluate the diagnostic, prescriptive and treatment services that he receives for a particular illness or problem varies among different kind of episodes and among individuals.

to provide these health care services. Consideration of the determinants of the kinds and cantities of inputs of health manpower and other resources themselves is brief and left to the end of the chapter, Chapter 6 then provides an inventory of health care resources.

The Overall Structure of the Economy

We turn briefly to the important features and roles in the overall structure of the economy of, first, the private economy; second, the private and public institutional and non-market forces which affect both the private and the public economy; and, third, the public economy itself.

The Private or Market Economy and the Price System

In a major sector of the economy, commonly referred to as the private sector, though it in fact comprises of many sectors including commercially oriented government corporations such as Ontario Hydro and Air Canada, the dominant characteristic of the economic structure is the use of the price system for performing the functions mentioned above. Though the price system is dominant in the private sector, the activities of governments do play a considerable role in it, as do its non-market or institutional features.

In the private sector of the economy the price system is the prime mechanism for determining the kinds, quantities and qualities of consumer goods to be produced, the nature and quantity of inputs to produce these goods, and the way in which inputs are combined to produce outputs. It initially also determines the distribution of income, although government action may redistribute income substantially.

Briefly, the prices of consumer commodities are determined by the interplay of the actions of the buyers and sellers of the commodities. Such established prices in turn influence how much of each commodity will be bought by individual buyers and how much will be supplied by individual suppliers. Similarly, established prices of productive services such as labour of various skills, and different types of capital plant and equipment, determine how much of each will be employed in the production of a commodity. These input prices also determine the production techniques by which the inputs are combined and transformed into outputs, since the owners and managers of businesses will attempt to use that technique which yields maximum profits. Insofar as it exists, competition among individual businesses tends to limit profits in a particular industry since the appearance of high profits will lead newcomers into the industry. The entrance of the newcomers, by increasing supply, tends to reduce prices and thus bring about a reduction in unusually high profits gained originally by the business in the industry.

These three aspects of the role played by the price mechanism in the productive operation are interrelated. Quantities of consumer commodities bought both are determined by prices and in turn are determinants of prices. The demand

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for consumer products ultimately affects the size of the industries that produce them, and the quantities of different types of labour services and other inputs used in the production process. Correspondingly, the prices of the various inputs have an effect on the kinds, quantity and quality of the products produced since production will take place only if it is profitable. These prices of the inputs themselves are affected also by the quantities of them employed in the various industries.

Two features of the use of the price system in the private sector of the economy deserve special consideration. First, the decision-making process in the organizational structure described above is a decentralized one. The organizational units are individual families (as purchasers of goods and sellers of productive services) and individual businesses (as buyers of productive services and suppliers of goods); decision-making customarily is carried out by these units. As such, decisions are normally made independently by these individual units in the light of conditions in different product and factor markets. Of course, these individual decisions taken in aggregate in turn affect the conditions in markets. But the markets serve to coordinate the actions of the individual decision-makers.

An essential characteristic of such decentralized decision-making is that individual choice has a wide degree of latitude. Consumers have such latitude of choice in the purchase of consumer goods and services. If, as is presumed of reality, there is a reasonable degree of knowledge on the part of each of many consumers about the commodities they are buying, then with a given income the consumer is able to bring his purchases and consumption into close correspondence with his preferences for different goods when he is making the decisions. Similarly, individuals as suppliers of work effort, have a range of choice of occupation and employer. And individual businesses, as producers of commodities, have choices of what goods or services they will produce, of what labour and capital goods inputs they will employ, and of what productive techniques they will use.

The second feature of the price system that is noteworthy for our purposes is that the existence of markets that are reasonably competitive ensures that human and non-human resources will be allocated efficiently to the production of particular goods and services. For example, if the price of a commodity rises sharply because of an increase in the demand for it, then potential new producers will be enticed into the market by high prices. With the subsequent increase in the supply of the commodity, its price will return to the prior level. Thus, the existence of markets and their effective operation not only make the price system work but also permit production to be brought into close correspondence with the preferences of consumers.

We should elaborate on the meaning of the term "economic efficiency" when applied either to the whole economy or to subsectors of it, which in both cases involves complex interrelations among component parts. Economic efficiency in

the production of commodities is obtained if techniques of production are selected, if the productive tasks of individual units of capital and labour are assigned, and if the inputs of labour and capital are combined in such ways that no rearrangement of any or all of them can lead to an increased output of goods and services from a given amount of inputs. The meaning of economic efficiency for large segments of the economy is similar in concept to its meaning for efficiency in individual decision-making units but it includes more. Individual producing units may operate very efficiently in the above sense, but at the same time the wider sectors of the economy or the whole economy may be very inefficient. Overall efficiency requires both that individual organizational units are operated efficiently and that the whole system is efficient in integrating the activities of the individual units. Ultimately, economic efficiency is achieved if production of final goods and services within the constraint of the available manpower and capital goods inputs is such that the individual and collective wellbeing of members of a society is, in some sense, as large as possible. In the case of private consumer goods purchased by individuals in markets, the individuals are the judges of which commodities benefit them most. In the case of public goods — that is, goods provided by the public economy for collective consumption by groups in a society, or by the whole membership of the society — the public body making the choice of goods makes the judgment of what commodities most benefit people collectively. We use the term "economic efficiency" ordinarily in the context of the efficiency of a system, such as the system for providing health care.

It should be added that if markets are not competitive, the adjustments of output to demand may not be achieved satisfactorily. Production units holding monopoly power may not expand output to the point at which prices just cover ordinary costs. It is partly for this reason that monopolies based on the holding of a franchise, such as public utilities, are subject to regulation. There are many departures from competitive conditions which may lead to a loss of efficiency in the private economy. The market still works to coordinate production in this case but less efficiently than in a competitive economy.

The above is a cursory and highly elliptical description of the working of the price system, a prime element of the economic structure of the private economy. However, the price system does not solve the economic problem by itself. The working of both the private and the public economy is moulded substantially by non-market institutional forces that are both public and private in character.

The Role of Non-Market Institutions and Non-Market Private Activities

Governments are responsible for setting up the legal and publicly administered institutional framework which determines much of the way in which all sectors of the private economy operate. This function of government does not involve economic transactions on the part of government in which money or goods change hands; but rather it in effect sets the rules of the game. As such it has a broader

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web than commonly is realized. It embraces the establishment of the legal system, the enforcement of law which is itself highly institutionalized, the regulation and control of state created monopoly, the broad supervision of individual businesses, the regulation of some professions or the delegation of such regulatory responsibilities to other bodies and the like.

There are in addition private or quasi-private institutional arrangements which substantially affect the working of the price system. Some of these are promoted by government. For example, professional licensing and regulatory bodies set standards that determine who may practise as a member of the relevant profession and they make regulations which substantially affect the mode of practice. There are accrediting bodies, many formed on private initiative, which accredit educational institutions and training programs or accredit hospitals. There are voluntary professional associations which may publish fee schedules and codes of ethics and perform many other functions. And many other institutions could be added which are also relevant to the health professions, such as the arrangements within professions for refereeing the award of research grants.

There are also more direct private non-market activities. These include the activities of charitable, religious and other non-profit organizations that provide goods and services without there being any return, or in any event not a return for the profit of the sponsoring body. These last institutions play an important role in some sectors of the economy including the health sector. There are also private non-profit insurance plans where the premiums cover costs of operation but where the services provided to the insured are paid for from pooled premium receipts and are not paid for directly by the individual receiving the service.

Government Effects on the Private Economy

Government affects the economic life of the private economy in four main ways. First, apart from their commercially operated enterprises, ultimately they are buyers of about 20 per cent of the gross final output of goods and services of the entire economy. A substantial part of these goods and services is purchased directly from producers in the private economy. In addition, in the course of their activities, governments employ directly large numbers of people and large amounts of capital goods to produce public goods of their own fashioning. While we speak of these goods as being government goods, in fact they are purchased for the benefit ultimately of the general public or the consumers of our society. In purchasing goods and services (including capital goods) from businesses and in buying labour services from individuals, governments usually pay prices determined in the relevant markets and they are sufficiently large buyers that frequently they themselves have considerable impact in determining these prices. However, in distributing these goods to consumers they do not usually charge prices; and if prices are charged they are not market-determined prices and thus are not used as a rationing device to ensure that demand and supply are equated. Although the cost of government activities may be borne in part by charges for licences, permits and fees, the major part of cost is covered from general taxation revenues levied on the economy at large. This system is in contrast to the provision of goods or services in the private sector by individual businesses or workers, who are reimbursed from the prices they receive for the commodities sold.

Second, governments transfer large amounts of income from some individuals and families to other individuals and families. These transfers of income take forms such as family allowances and old age pensions. Financed from social security levies or from general revenue raised by taxation, they amount to about another 15 per cent of gross final product. The aim of government is to secure a more equitable distribution of income than has been generated in the private economy. Insofar as income is redistributed, the demands for commodities produced by the private economy are affected.

Third, and more recently, governments operate substantial insurance schemes. In the operation of these insurance schemes premiums are collected from a large part of the population that may be benefited to cover the costs of the services provided under the schemes; a considerable part of the cost is covered also from general revenue raised by taxation. These schemes involve a substantial element of income redistribution. The recipients of the services provided under the schemes receive them on the insurance principle; they do not pay directly for the services on the basis of the prices charged for the services.

Fourth, we have already noted the important role of governments in establishing and administering the legal and much of the institutional framework within which the private sector of the economy works and indeed within which the public economy itself, as a buyer of goods and services, as an employer of labour, and as a producer of public goods, must operate.

The Public Economy

It is worth examining more closely the nature of government operations as a purchaser of privately produced goods and services and as an employer of labour and a user of capital goods. In the same manner as the economic structure of the private economy has been outlined, that of the public sector or public economy as a provider or purchaser of goods and services can be described. Like the private economy, the public economy comprises several sectors. Among these are the defence sector, the law and order sector, the municipal services sector, a large part of the transportation sector (such as highways, waterways and airports), a large part of the health care sector, the greater part of the education sector and so forth. Despite the disparities among the sectors, general characteristics of the economic structure of the public economy can be set forth. As with the private economy, the economic structure of the public economy is the total of mechanisms that determine the kinds, quantities and qualities of public goods to be produced or provided; the kinds of different human and non-human

resources used to produce these goods; and the ways in which inputs are combined to produce the desired package of outputs. We now examine how these functions are performed.

The main feature in which the economic structure of the public economy is distinct from that of the private economy is in its method of making decisions about what goods and services are produced, which decisions determine at the same time the general levels of the primary inputs of labour and capital goods, and of commodities purchased from the private sector that are necessary to produce the chosen level of output. In the public economy the market structure and price system play a subordinate role in these matters. One reason for this difference is that members of governments are making decisions for the collectivity of the members of the economy, and they cannot use prices as a guide to these decisions in the same way that an individual can in making choices for himself — indeed, public goods tend to be what they are largely because they are not amenable to direction from a decentralized price-oriented market economy. Overall costs play a part, of course, in the determination of the aggregate volume of the goods provided, and costs of individual goods or services play some part in the determination of the amounts to be provided, but they are not important in the same way as in the private sector in determining the level or the composition of public goods provided.

A second feature of the structure of the public economy is that decision-making in government is relatively highly centralized, though not perhaps to the degree casual reflection would suggest since there are three levels of government — federal, provincial and municipal — and in addition there are numerous departments, tribunals, boards and the like and other subdivisions within departments each with substantial decision-making power. Nevertheless, government decision-making is relatively highly centralized compared to that of the price system. A market system does not coordinate government decisions in the same way that it does in the private sector. Coordination in the public economy must come, in the main, from the centralization of decision-making itself.

Although dominated by government, the public economy still makes use of market prices (though not in a major way the market system) in shaping its direct decisions on choices of inputs. The general level of inputs is determined, of course, when the level of outputs is decided since the two are closely tied together. Prices are of considerable significance, however, in determining what kinds the inputs will be, and in determining the ways in which the inputs are combined together to produce the desired public goods. Use of prices for guiding decisions on production techniques follows directly if government departments actively attempt to produce desired public goods and services at lowest cost per unit. Governments usually must pay market-determined prices for different labour services, raw materials and other products. In fact, substantial use is made of

prices as guides to action by governments in deciding what inputs they are going to use and what productive techniques they are going to use. There is pressure on governments to economize through the political process.

Nevertheless, the fact remains that the decisions of governments about what kinds of goods they are going to produce — other than in the case of the commercially oriented goods or services — are not primarily determined by prices. The public body must make a judgment about what the community wants on the basis of the best knowledge that it has at hand. It is making a decision for a collective group and prices work satisfactorily as the predominant guiding mechanism only when the decisions concerned are those made by individuals either in connection with their own consumption or in connection with the management of their own businesses, or, in the case of governments, in connection with the management of a government unit.

The Economic Structure of the Health Sector

Against this background of the general characteristics of the economic structure of an economy, we examine the economic structure of the health sector and look at its distinguishing characteristics. The economic function to be provided in the health sector is similar in nature to that performed by the economy at large. It involves determining continually the following matters: what kinds, quantities and quality of health goods and services are to be provided for the benefit of the members of a society, individually and collectively; to whom are these goods to be provided; what kinds, quantities and quality of human and non-human resources are to be used to provide the desired health care goods and services for the general public; and how the resources are to be combined — that is, what production techniques should be used to produce the desired output of health goods and services within the constraints of the inputs of manpower and other resources that are utilized in the health sector. The organizational apparatus for determining these matters, then, is the economic structure of the health sector.

There are a number of characteristics of the health sector that differentiate it from other sectors. First, as we have noted before the individual members of a society, the public at large, often are not good judges of the individual treatment services that they require, nor of the quality of the services being provided whether of a preventive or a curative kind. They must depend upon the advice of the members of the relevant profession as to what goods and services they should have, as well as depending upon them to provide the services. This feature of the health profession has important ramifications for the structure of the health industry, as will be apparent from what follows.

Second, owing to this lack of knowledge on the part of the consumer, statutory restrictions have been placed on who may provide health care and under what conditions. Statutes can go only so far, however, in dealing with the matter. For the purpose of implementing the intent of the statutes, substantial powers have been delegated to various regulatory bodies. Important among these bodies are

the licensing, disciplining and regulatory professional bodies, such as the College of Physicians and Surgeons of Ontario and the Royal College of Dental Surgeons of Ontario. Hospitals are run in a way that gives substantial authority to various hospital committees about who may do specific acts of providing health care and in what way they must be done. Bodies that accredit educational institutions have become an important part of the regulatory apparatus, for accreditation commonly is required of an institution before its graduates are eligible for licensure. The reducational institutions themselves have played an increasingly important role, beyond that of the bodies already mentioned, in determining standards of education. And governments, as well as operating certain health services directly, oversee and participate directly in the processes of assuring that certain standards of quality of health services and the means of providing them are maintained.

The powers of all these bodies are substantial. For example, the licensing and disciplinary bodies of the senior professions, as well as certifying the competence of those who are licensed, may lay down rules about what kinds of functions in the process of providing health care may be delegated to auxiliary or complementary occupational groups. They may even set limitations on the kinds of care that the member of the senior profession himself may provide. In hospitals the matter goes much further. Hospital committees — and this means predominantly medical committees - decide what professions will be allowed to practise in the hospital and in what way. They decide what members of a particular profession, for instance within the medical profession itself, may have the privilege of carrying on their practice in a hospital. They differentiate among individual members of a profession as to the type of care that they can give in a hospital, and their decisions are important in the allocation of functions among the various occupational and professional groups within the hospitals. And they see that individual persons, particularly the members of the senior professions, maintain certain standards of practice in their day-to-day work in the hospitals.

The purpose of these arrangements is to attempt to assure competence where neither members of the general public as consumers nor members of government are equipped to judge competence. There must be doubt also, at the back of these arrangements, about the individual judgment of some members of the professions themselves. Otherwise, why could it not be left to individual doctors to decide what functions could be assigned to nurses who work with and assist them?

More will be said below about educational accrediting bodies.

A third distinctive feature of the health care sector is that quite a large part of its structure has developed in the way it has owing to attempts to make health care available to people with low incomes. The origin of the hospitals, of course, even in the not so distant past, was to provide care for the poor. To do this, non-profit lay and religious bodies raised funds to build hospitals often with public assistance, and so also did some local authorities. Partly with changing technology, but also for other reasons, hospitals developed to provide care for all

members of the population, but the role played by non-profit religious and lay organizations and by governments, the latter particularly in the case of mental care, remained dominant. These bodies that were responsible for building and providing the means for operating the hospitals had to depend upon the professionals for advice about the kinds of health care that should be provided and the way they should be provided within the hospital. It should be added that in the provision of health care to low income groups, municipalities and provincial governments long have also contributed towards the care of the poor in the hospital, by making grants to hospitals for the care of the indigent. In addition, the members of the professions have contributed their services to the poor, not only in the hospitals, but also in their offices and the patients' homes. More recently, the establishment of compulsory universal hospital and medical care insurance has had as one objective the assurance that the poor and the foolhardy will be able to obtain hospital and medical care if the need for it arises.

A fourth distinction lies in the way that members of the health professions receive their education and training. In the past, education and training was, in many instances, controlled and even provided by the regulatory bodies themselves, or at least under their aegis. Now, the education and training of the members of the health professions are obtained mainly in institutions supported by government funds. In this respect, the education of those in the health professions and occupations is similar to the education of those in other occupations. But, at least in the senior health professions, the knowledge of what this education should be is not nearly as widely held by either members of the public at large or by those in governments or in government services as in the case of many other educational endeavours. The standards of education in these senior professions have come to be set in large part by accrediting committees, made up predominantly of the members of the professions being educated. Hence, decisions about the kind of education that is to be provided are made by those who are not responsible for the financing of the education. Neither governments nor members of the community at large are equipped to give judgments in these matters in their own right, and frequently there is not enough unanimity within a profession about the levels of education required that governments could rely upon the advice of individual members of the profession.

A fifth characteristic of the health care sector, then, which follows from the preceding characteristics and sets the health care sector apart from many, though not all, economic endeavours is a dispersion of authority without there being any mechanism — or perhaps more correctly, with there being inadequate mechanisms — to reconcile the consequences of the decisions made by the various authorities in a way that leads to the achievement of the greatest efficiency, within the institutional and other constraints that are placed upon the choice of the health goods and services to be provided and upon the inputs of productive goods and services. For example, educational accrediting bodies set minimum standards of educational requirements without having to take into account the costs of

providing the education on the one hand, or the costs to the general public of the services of those who are being educated on the other. While they may take some account of costs, they are primarily interested in seeing that those being educated come up to standards that are determined, at least in quite large part, independently of the above costs. On questions concerning the operation of a hospital they are apt to be more interested in what they regard as a good quality of service than in costs; and, indeed, they may insist on some of the arrangements of the hospital because they feel that statutes and the requirements of their licensing body do not permit them to delegate some functions. Similarly, the licensing body is charged with seeing that the members of its profession have certain competences and provide services of a certain standard to the public. In trying to discharge suitably the responsibilities devolved upon it this body may feel constrained, and may actually be constrained by the legislation, in permitting the delegation of certain functions by the members of the profession to those of other professions, even though they might themselves feel that such could be properly done. Further, government units that are responsible for the running of certain health facilities which are only a part of the health sector may make judgments about the arrangements in these facilities that are not reconciled with the services available from other facilities.

Having mentioned these special characteristics of the health care sector, we now turn to look at the economic structure of the sector more in the large. In particular, we are interested in the role of the price system in shaping the economic structure, the role of government activities, and the role of the non-market activities, including those of charitable and religious organizations, other non-profit organizations, and the quasi-private regulatory bodies. To proceed, it is convenient to divide the health sector into certain subsectors. These subsectors are, first, a hospital subsector; second, the direct medical care subsector; third, the non-medical care subsector; fourth, and finally, the education and research subsector.

The Hospital Subsector

We examine the determinants of the economic structure of the hospital subsector by looking first at the role of non-market and institutional factors, then at the role of government, and finally at the role of the price and market system.

The role played by non-market traditional and institutional forces has been, and remains, important in the hospital sector. It has been noted that in Ontario the establishment and building of public general hospitals were undertaken, until quite recently, by non-profit, lay and religious bodies with perhaps some government financial support. The funds to build these hospitals were provided largely by voluntary contributions. Consequently, the decisions to build the hospitals and to equip them for operation in a certain way determined the amount of hospital services that would be available in the community to be serviced. Once the hospital became a general public facility, substantial amounts were collected as fees for use of the hospital from those patients who could pay, and these fees

undoubtedly affected in some measure the level of hospital use. Even so decisions to build the hospitals were *not*, in the main, market oriented. They were made on the basis of some view of the needs of the community in the minds of those on the boards of the hospital. More recently, the financing of hospitals has been undertaken predominantly by governments, although lay boards remain important in their planning and management. It still remains true, however, that the decisions to build additional hospitals or to renovate old ones are made on the basis of government and hospital board judgments of the needs of the various communities. It should be added that throughout the period in which hospitals have been important, the advice of the medical profession in particular among the health professions, to either the hospital board or to the governments, has played an important part in shaping the decisions about what kinds and sizes of hospitals are provided.

Other institutional features of the hospital sector have also played a most important part in its economic structure. The medical committees and medical staff are the dominant influences in many matters, such as the establishment of procedures to assure that the services provided are of good quality, in deciding what privileges will be granted to members of the medical profession, in deciding what discretion will be assigned to internes and residents, and in deciding the roles of non-medical personnel. While members of the medical staff are aware, undoubtedly, of some of the economic implications of the decisions that they make and while they take some account of them, it is likely that the quality of the service they see being provided is more important in making many decisions than the economic consequences of those decisions. It is the board's, and now also the government's, responsibility to take cognizance of those economic consequences.

Another institutional matter that affects the operation of hospitals is the fact that traditionally they have provided for substantial parts of the education of members of the health professions. Medical students obtain a considerable part of their instruction and do their internships in hospitals. Postgraduate education in clinical specialties has been obtained almost entirely in hospitals. Nursing schools have been predominantly in hospitals, and more recently large numbers of the laboratory and radiological technical personnel have been trained in hospitals. There has been commonly a large service element attached to this training. In any event, its organization has been influenced heavily by non-market forces.

Many other examples of the role of non-market oriented bodies and of institutions in the hospital can be given, but the above will suffice to illustrate the nature and the pervasiveness of these forces in the operation of the hospital.

Although the government role in the organization of hospital services in Ontario might have been described as subordinate as recently as a decade ago, the same cannot be said today. Governments now occupy a most important position in the economic structure of the hospital sector and their influence is felt in many ways. It has been mentioned already that governments are, in fact,

responsible for assigning authority to professional licensing and regulatory bodies and for establishing, through legislation and by other means, rules for the internal organization of hospitals.

Governments, in fact, of course, operate directly a substantial hospital complex through tuberculosis sanatoria, hospitals for mental care, military hospitals, and even some local general hospitals. The price system plays a small part, although the level of costs has been important, in the determination of the scale of these operations, especially in the case of federal and provincial hospitals. Rather, these government bodies decide what services the members of the public require and the scale of the services, and then take steps to provide this quantity of services. There is, in general, no charge for them.

The federal, provincial and municipal governments are responsible also for providing directly public health services, and again the decision to provide these are not made in response to conditions in the markets for such services, but rather on the basis of a judgment by governments of what the people of the community wish and can afford.

In the cases of mental hospitals and of public health, governments directly organize the service. They hire the professional and other labour services required and purchase the necessary capital equipment and facilities, and they decide directly how these are to be organized. In doing this, they must depend heavily upon professional advice, but in a different way than in the case of general hospitals. In this instance, the advice is more apt to come directly from members of the professions employed by the government, rather than from organized professional units themselves.

With the advent of hospital insurance, governments started to play a much larger role in the affairs of general hospitals than before. The changes that took place should be neither underestimated nor exaggerated. For one matter, the inception of public hospital insurance did not mean a change from a system of no insurance to one of government insurance; in fact, prior to the introduction of public hospital insurance, very large numbers of persons were covered by voluntary insurance. In both cases, consumers who would have paid for services of hospitals as they used them, and who would thus have been influenced in their use of hospital services to some extent by the prices put on the hospital services, no longer pay for hospital care on the basis of the care received. The major change that did take place with the advent of public hospital insurance, as well as the extension of insurance coverage, substantially was the establishment of the responsibility of the provincial government for practically all the financing of general hospitals, with some of the funds passing through provincial hands coming from the federal government. While the local hospital boards and some of the medical and other professional committees within the hospital continue to play a substantial role in the economic affairs of the hospital, the influence of the provincial government has become all-pervasive; first, in connection with plans for expanding hospitals or for remodelling and refurbishing them; and second, for working out an annual budget with the hospitals on the basis of which the latter are reimbursed from the funds collected by the provincial government. Voluntary agents as collectors of funds largely have been replaced.

What part then is left for the role of the price system? The role of prices (perhaps as distinct from the price system) is still perhaps more important than one might infer from the foregoing description of the role of governments and institutional arrangements. Prices serve little function in affecting the demand of individual members of the general public for hospital services, since aside from a few fringe items, the costs of bed and other hospital services are covered by insurance. Prices, as reflected in costs, play some part, however, in government decision-making. And prices still play an important role in determining the availability of manpower supply in the health services — the remuneration to be obtained in an occupation is still determined by the wage or salary paid, or by the fee received. Prices also affect the way in which manpower and other resources are organized to produce the health care services for the general public. Those who are responsible for the financing of hospitals are anxious to use modes of operation that are the least costly within the range of choice that is open to them. Decisions to use automated equipment, rather than manual systems, perhaps to use some nursing assistants rather than diploma nurses, or to have wards arranged in one way rather than another, may well be based on the costs of the alternative ways of doing things. The institutional and other arrangements noted above, however, may leave this range of choice rather small. Whatever the role played by prices, the hospital sector is certainly not one in which the market is the organizing force that brings decision-making on the part of many groups into cohesion.

In general, then, the allocation of resources in the hospital sector is not accomplished in the same way as it is in the private economy. Although largely indirect, the government role is all but ubiquitous, as is the role of physicians. The role of voluntary non-profit bodies, while still important, is declining. In contrast, the role of the price system is clearly subordinate, and the coordinating structure of a market has little part to play. Decision-making is much more centralized than in a price and market economy, but it is still dispersed among several bodies. Its coordination must come about by other means than a market system.

The Direct Medical Care Subsector

For convenience, the direct medical care sector is demarcated as including, in the main, personal health care provided to individuals by members of the medical profession both in and out of hospitals, though not as employees of hospitals; it includes also direct medical care provided outside hospitals by persons such as clinical psychologists, special nurses and physiotherapists.

As with the hospitals, the organizational influences in directing the provision of medical care have been the price system, governments and the non-market,

non-profit activities of religious and charitable bodies and of the institutions both of the professional bodies whose members supply medical care on the one hand and of consumers on the other. The relative influence of these different organizational elements has been substantially different, however, from those of the hospital sector.

As in the hospital sector, so also in the medical care sector, professional bodies and associations of the different health occupations play important roles. A distinction must be made between the roles of official regulatory professional bodies and of voluntary professional bodies. The roles of the licensing bodies we have already dealt with when considering hospitals. That they are important, as well, in shaping the structure of provision of health care in the direct medical care sector will be immediately apparent. And, of course, doctors practising in hospitals as a part of their private practice are subject also to the regulatory controls of their colleagues in the hospitals. Traditionally, the professional licensing bodies also have played a dominant role in setting forth educational requirements. However, the development of bodies which accredit educational institutions, of the independent educational institutions themselves, and of national examining bodies has taken much of this function out of the hands of the licensing body although it remains nominally their responsibility.

Voluntary professional associations also play a considerable part in affecting the organization of the direct medical care sector. Their role is primarily that of overseers of the economic and other interests of their individual members. These associations establish codes of ethics, prepare and publish fee schedules, which are widely followed, suggest model sets of bylaws for hospitals, and have many other activities (see Chapter 8).

The medical care sector has been influenced by a more widespread use of the price system and by the operation of economic incentives, especially for the providers of health care, than has the hospital sector. In the past, as a result of the interaction of the behaviour of the suppliers and the purchasers of health care, markets for different medical care goods and services and prices for these goods and services, were established — although in the case of medical services not in the same way as in a competitive market. The differences have been two-fold. We have referred before to the fact that the consumer himself is not apt to be a good judge of the kind of individual care he needs, that he must rely on the advice of the physician as to what treatment he should have, and that he bases his own decisions largely on this advice. Second, the prices of medical services have been established not by a competitive interplay of market forces, but by the profession in the form of a fee schedule. Nevertheless, consumer purchases of medical care have been influenced substantially by the prices of such care, although less for emergency treatment than for other medical care. Of course, there was the long-standing practice of physicians providing medical care without charge to the poor. The above situation is now greatly changed with the introduction of medical insurance.

Just as consumers of health care made use of the prices of different types of medical care in making their choices, so also the potential suppliers of medical services have made use, and still do make use, of these prices. For one matter the choice of medicine as a profession was, and is, influenced substantially by the prospect of income to be obtained by selling services to the consuming public; and choice among specialties is influenced in the same way. Similarly, physicians in organizing their offices have been guided by the prices they pay in running their offices. The kinds of equipment that they have used have been affected by the prices of such equipment, and the type of personnel that they have employed in the offices have likewise been affected. However, insofar as the use of professional or auxiliary personnel in the office is concerned, the physician is circumscribed in his ability to delegate functions to assistants by the statutory and institutional forces noted above. It must be remembered that at no time has the influence of the price system been ubiquitous in affecting the provision of health care services. The voluntary provision of care to those who could not pay, at little or no charge by members of the medical profession, has been mentioned already.

With the introduction and spread of voluntary medical insurance schemes, the use of the price system declined. Consumers covered by such insurance no longer use the prices of individual types of medical care as guides to their choice of care. The growth of private medical insurance plans and the introduction of the Ontario Medical Services Insurance Plan, and more recently of the Ontario Health Services Insurance Plan, mean that the role of the price of medical services in directing consumer choice at the level of the individual will have virtually disappeared. Hence, the role of the price system has declined, while that played by government has increased significantly. In the past, decision-making by the latter on inputs, outputs and production processes in providing direct health care to individuals was limited to decisions regarding the provisions of medical care to Indians and Eskimos, war veterans, the mentally ill and in some cases indigents. In the future, the financing of medical care will be affected by the operation of the public health services insurance plan.

It is only necessary to mention further without elaboration that, as noted before, governments have played an important role in providing legislation which affects the circumstances of the delivery of direct medical care, and have for a considerable time financed much of the educational expenditure on the training of personnel who provide direct medical care. This latter function will be elaborated later.

In summary, then, prices play a greater role in the direct medical care sector than in the hospital sector, but theirs is still not a dominant role. The role of the official professional regulatory bodies, of the voluntary professional regulatory associations and to a lesser extent of such bodies as the Victorian Order of Nurses or the Cancer Society, is wide; and the part played by government, particularly

through insurance schemes, is substantial. As in the hospital sector, so in the direct medical care sector, the market does not provide the major coordinating function of the actions of a number of different decision-makers.

The Non-medical Subsector

The non-medical sector includes the provision of dental care, of pharmaceutical products, of ophthalmic goods and services, and so on. There is, of course, a great deal of variation in the economic structure of each of these small subsectors, but some general comments can be made about the economic structure of this inclusive non-medical care sector.

In the main, as with other health care services, the consumer himself is not a good judge of the effectiveness or quality of many of the goods or services provided in these sectors. He must rely on the advice of members of the health professions concerned. Given that fact, the place of the price system in the economic structure of the non-medical care sector has been significant and will continue to be significant, because of the common exclusion of the health care provided in this sector from many private and from government medical care plans. In this sector, then, the price system is an important mechanism through which individual buyers and suppliers of these non-medical care services make decisions on what goods they wish to buy or supply. Given the prescriptions or advice provided them by members of the health professions, individuals choose dental care, or buy drugs, or buy ophthalmic devices in substantial measure as guided by the prices of these goods or services. On the supply side, dentists provide dental care in response to the fees they obtain for providing these services. And drug companies produce drugs in response to conditions in markets — though a few vital drugs may be subsidized; or, in the case of immunization agents, drugs may be purchased by public bodies and provided free to individuals. That prices play a substantial part in nearly all parts of the provision of goods and services in this sector except education is clear.

The influence of government action has been less than in the hospital or medical care sector though certainly far from absent. As usual, there has been legislative control and the delegation of licensing and regulatory functions to professional boards. There has also been the provision of educational and other training. In addition, the administration of such Acts as the Food and Drug Act and the Narcotics Control Act has led to direct supervision of many activities in this sector. Governments have been much less involved here than in the two preceding sectors, however, in actually making decisions about the direct provision of health care, though these functions are growing now with there being greater attention to such matters as health care in schools.

Again, the role of voluntary non-profit charitable and religious organizations, though limited, is noteworthy. For example, organizations like the Canadian National Institute for the Blind contribute substantial services for some segments of the population.

Finally, the role of the professional licensing bodies and voluntary associations is much the same as in the case of the direct medical care sector. As one illustration, we may mention that the official regulatory body of the dental profession, the Royal College of Dental Surgeons of Ontario, plays much the same role for dentists as the College of Physicians and Surgeons of Ontario plays for members of the medical profession. Similarly, the voluntary association again attempts to serve the economic interests of their members by such means as publishing a fee schedule and by establishing codes of ethics.

In this sector, the price and market system does play a larger part in coordinating the activities of large numbers of independent decision-makers, of independent buyers and sellers of health goods and services, than in the hospital or direct medical care sectors. Nevertheless, there are decisions of substantial importance made by a number of groups in this area that are made outside the market structure or are made in non-competitive fashion. The market structure is not the coordinating mechanism for all actions taken within this sector.

The Education and Research Subsector

The education and research sector is not shaped in any significant way by a market price system. In some of the professions until fairly recent times, it has been influenced greatly by professional licensing bodies and by non-profit bodies supporting educational institutions or providing research funds. The role of the hospitals in education has been already noted. But in some professions for a very considerable time, and for nearly all professions at the present time, government actions are most important. Governments now provide most of the funds that support the educational and training facilities of those in the health professions. In making decisions on what funds to provide, they affect the manpower that will be trained for the health professions. In many cases, they enter directly into the training of the members of the health professions, particularly through such institutions as the Department of Education in schools and colleges, but also in the Ontario Hospitals and in the training of nursing assistants in direct government-sponsored programs.

While governments provide the finances for much or most education and training, even to the extent of paying part of the students' maintenance costs in many instances, they commonly do not directly control this education and training themselves. Important influences in shaping the type of training given are the non-profit bodies such as universities and hospitals, and significantly the accrediting bodies whose stamp of approval in a training program is necessary before the graduates of the program will be accepted for licensure by the professional licensing body. For the clinical specialties in medicine, the nation-wide body of the Royal College of Physicians and Surgeons of Canada dominates the requirements for obtaining certification or fellowship.

The support of research has tended to move in the same direction as the support of education. With it becoming increasingly costly, as has education, the

support of research has tended to shift from voluntary bodies, such as foundations, or voluntary societies such as the Cancer Society, to public bodies. But it is not yet completely dominated by the latter.

It would be ridiculous, of course, to suggest that prices play no part in shaping the educational structure. Prices do play some part in affecting the kinds even of professional personnel that are employed for instructional purposes. Those responsible for the running of educational institutions do try to make their funds go as far as they can. Nevertheless, the areas of choice are relatively limited, and the dominant role in establishing the economic structure of the educational sector is played by governments, by non-profit organizations, and by professional accrediting bodies, licensing bodies and voluntary associations.

The Overall Health Care Structure

The implications of all these matters for the economic structure of the overall health sector are illuminated by a glance at the magnitude and direction of change in size of each of the four subsectors. In Ontario, in 1965, expenditures on health care given in hospitals, not including the fees of private attending physicians, was approximately 59 per cent of all personal health care expenditure (the latter including prescribed drugs but not covering the capital costs of hospitals, the educational costs of those disciplines and professions not trained in the hospitals, and expenditures on public health); by contrast, although we do not have exact figures, the comparable figure in the late 1920's was almost certainly less than 30 per cent. Expenditures on private physicians' services in Ontario in 1965 were approximately 22 per cent of all personal health care expenditure, as contrasted with probably well over 35 per cent in the late 1920's. Outlays on personal dental care in Ontario in 1965 were about 6.5 per cent of all outlays on personal health care as compared with between probably 10 and 11 per cent in the late 1920's. Other personal health services and prescribed drugs purchased through retailers each accounted for approximately 6 per cent of personal health care expenditures in Ontario in 1965, with the former percentage having fallen to about one half of its magnitude of forty years ago (estimates are not available of the amounts spent on prescribed drugs before the war).3 It may be seen from the foregoing that the hospital subsector — that subsector in which the influence of the price and market system is least important in shaping the economic structure of the health services system and in which the role of government and the various professional and other institutional forces is the greatest — has grown greatly in magnitude relative to the whole health care system. Conversely, the non-medical care sector, in which the effects of price are most prevalent, has declined in relative importance very substantially. The consequences of this trend both within and among the various health care subsectors are as follows.

³See Table 6.1, Chapter 6 of this volume and Report of the Royal Commission on Health Services, Vol. I, Queen's Printer, Ottawa, 1964, Table 11.3, p. 429.

First, the role of governments in shaping the economic structure of the health sector has become a major one. To their traditional responsibilities for the legal institutional framework of the health sector, much of it delegated to professional bodies, for the provision of health care to particular sectors of the population, including the mentally ill, war veterans, Indians and Eskimos, and for financing a considerable part of health education, there have been added the great undertakings of comprehensive public hospital and medical care insurance, and an even greater role than before in the support of education and research related to the provision of health care.

Second, the role played by professional bodies, formally and informally, places them in a league with government as major constituents of the economic structure of the health care sector. The role of professional groups in the traditional functions of the licensing and regulatory bodies has been augmented by a greatly expanded and increasingly formally organized hospital structure; by a growth in the numbers and influence of accrediting and examining bodies; by growing activities of voluntary associations, particularly among the junior professions; and by substantial control of education in the postgraduate clinical specialties of medicine.

Third, and by contrast, the role of the price system has declined substantially. We have noted that for long, owing to the nature of health care, the consumer has been guided in substantial measure by others in his choice of health services. The introduction of public comprehensive hospital and medical insurance has virtually completed the process of removing price as a constituent in the choice of hospital and medical care by the individual member of the public. Prices remain important in directing choices of individuals in regard to occupations. They continue to play a substantial role in the organization of the provision of health services by public and quasi-public bodies, but theirs is not a predominant role such as they have in large parts of the private economy.

Fourth, although voluntary non-profit, charitable and religious organizations continue to make valuable contributions, their relative influence has declined substantially. The most marked decline has been in the case of the hospitals and in some universities, the areas in which these bodies traditionally played their largest parts. They remain important in specialized areas of the health sector in the form of societies or associations, each of which works in a rather narrow part of the health sector.

Advances in Medical Science and the Economic Structure

Much of the change in the structure of the health sector can be accounted for by advances in medical science. Since the knowledge of the causes of good health and ill health are bound to continue to grow, perhaps at an increasing pace, and since the technology of the provision of health care is equally apt to change rapidly, it is instructive to consider briefly what some of these effects have been.

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First, it is in large part, though by no means entirely, these changes that have led to the growth in the delivery of health care through hospitals. The development of sanitation and aseptics made hospitals places in which diagnosis and treatment could be carried out safely. Advances in surgery led to the use of highly complicated facilities such as operating theatres with all the attendant needs for a substantial range of equipment and personnel, and a need for intensive post-operative care. Hospitals increasingly became better places for childbirth than the home. They became the only places where at any reasonable cost the personnel and equipment could be assembled for the wide range of medical diagnosis and treatment that medical knowledge and technology permitted. Their function remained largely curative and not preventive.

As the hospitals became increasingly sophisticated centres for health care, they became increasingly expensive to build, equip, and run, and increasingly complicated to manage. Increased costs meant that voluntary non-profit bodies could no longer carry the same proportion of construction and running costs as they had before. The burden was gradually shifted to governments, a process that is now substantially complete. The increased complexity of maintaining standards of practice in the hospital accounts in part for the growth of the systems of control that lie in the hands of the various medical and other hospital committees.

Just as these advances in medical science led to the use of highly complex facilities and equipment, so also did they lead to the requirements of highly complex skills on the part of the providers of health care. In turn, these complex skills then necessitated the completion of an extensive training program on the part of the students before they could become qualified practitioners. Thus it can be argued that ever more expensive medical training programs slowly but surely led governments into their present role as major financial supporters of health care education.

Similarly, as medicine became more complex, so too did the research required to produce further advances in medicine. Accordingly, while at one stage research could be supported largely by funds gathered from private donors, such funds have become quite inadequate to support the current volume of warrantable research. Governments thus began to move into the field of medical research through its financial support, which is now by far the largest part of all research support. While government finances the research endeavours, members of the medical profession are responsible primarily for the award of research grants through an increasingly formal institutional apparatus for reviewing such grants.

It can be argued also that the advances of medical science and technology have widened the information gap between the recipients and the providers of health care on the more technical aspects of health care, and that this development in turn has led to both government and professional bodies to extend the regulatory and control devices that exist in various parts of the health sector. The extension of licensing and certification from simpler to more complex forms and from the senior professions to large numbers of junior professions, the exten-

sion of the use of accreditation procedures for establishing the worthiness of educational programs and other such developments, have already been mentioned. There is no doubt that the extension of this framework represents an attempt to assure the consumer of health care that some minimum standard of care will be provided by health practitioners and institutions. It would have been extremely fortuitous if protection of the economic interests of some groups had not also played some part in such developments.

In the same vein, we note finally that the combination of the increasing potentialities of providing health care along with its increasing cost, and the concomitant enhancement of demand for health services that follow from rising standards of living have led governments to participate in the provision of health care to the extent that they now do. As per capita incomes have increased, the demand for both a larger quantity and a better quality of health care has also increased on both an individual and collective basis. The use of resources for the provision of health care at approximately 6 per cent of gross provincial product has made the business of providing health care one of the larger economic endeavours of the economy. Both developments have led to attempts to make health care available to the entire population. Consequently, both the great increase in the cost of the provision of ever better health services and the attempt to make these services available to all sectors of the population have contributed to the increasing role of the government in the financing of health care.

If advances in medical sciences and technology are to be utilized to their potential, and if the increasingly large amounts of manpower and other resources used to provide health care are to be utilized efficiently, it is necessary that the whole structure of the health care system be sufficiently adaptable that the improvements following from increased knowledge are adopted reasonably rapidly; it is also necessary that the adaptations provide efficiency in the broad sense. How has the health care sector performed in this respect?

The evidence suggests that members of the senior professions who do much of their work in the larger hospitals and particularly those associated with medical schools, or who are in other settings in which they have substantial contact with others in their professions, adapt their methods of diagnosis and treatment quite rapidly with advances of knowledge. It is less certain that those who are isolated, either in the form of their practices or in the communities in which they live, have made adaptations as rapidly. On the whole, however, there do not appear to be greater obstacles to, or lags in, adaptations to new modes of treatment within individual health professions, than are encountered in a great many other occupations and professions. The difference, if there is any, is that it is more important to keep abreast of recent developments in the health professions than in some others.

Further, it must be noted that substantial adaptations have taken place, with the growth of specialties in the senior professions, with the creation of new

disciplines and the training of new types of personnel to perform new procedures at the junior levels and with some devolvement of tasks from senior to junior professions. These adaptations are illustrated by the changes that have taken place in the mode of operation of hospitals. Responsibility for the patient remains, as it has been in the past, partly with the attending doctor who is usually in private practice or attached to a medical school, but it is shared by the hospital. The attending doctor is supported now by a much wider range of services than were available in earlier years. An increasingly important part is being played in hospitals by the house medical staff. In 1968 the total number of full-time medical staff in the hospitals of Ontario was well over 20 per cent of all the active medical doctors of the province. The greater number among these were residents and internes who, in 1968, comprised approximately 15 per cent of all physicians in Ontario (though, of course, the internes were not yet fully licensed practitioners). Their numbers had increased by approximately one-half since 1961, continuing a trend of longer standing.4 The number in the nursing service per patient has expanded significantly from prewar years. Nursing assistants have become a significant part of the nursing service and there has been delegation of some duties to nurses beyond those carried out in prewar years. More significantly there has developed a rapidly expanding group of supporting technical personnel. This personnel includes, as its two largest groups, a large number of laboratory technicians, most of whom have no direct contact with patients, and a smaller but nevertheless substantial and rapidly growing number of radiological technicians, whose contact with patients is largely one of performing technical routines. These personnel perform a very large volume of routine delegated tasks. Part of these tasks was performed by more highly trained personnel before these technicians were available in any number; but the largest part has been created by new technology. There are, in addition, a still smaller, though rapidly growing, group of other paramedical personnel, such as physiotherapists, occupational therapists and social workers, who work in specialties of patient treatment on prescription by medical practitioners. The result has been that hospitals have become very complex places with much interdependence among the parts. At the same time there has been relatively little change in the major assignment of responsibilities for patient care between the medical and other staff.

While the introduction of new medical knowledge and technology resulting from the efforts of medical science have been introduced fairly quickly in the provision of personal care with enormous benefit to the recipients of health care services, it must be said that adaptation of the whole system to achieve greater efficiency appears to have been rather slow. Although the case is not clear, there is much opinion, both professional and lay, that there has not been that adaptation of roles between the senior professions and other disciplines, the members of which have or could become increasingly well qualified to perform some of the tasks now performed by the senior professions, that would permit considerable

⁴See Tables 6.9 and 6.53, Chapter 6.

reduction in cost and that is feasible without there being loss in quality of care. We note also that there is concern about the rising cost of hospital care and query about whether some services provided by hospitals could not equally well be made available by other means at less real cost. It is clear, too, that the forms of practice of the medical profession itself have been slow to adapt to changing circumstances: the concern about the future of the general practitioner, the uncertainty about the role of group or other combined forms of practice, and the questioning of the form of medical education itself illustrate the problem.

Not all the problems of adaptation arise from changing knowledge and technology. Some derive from the great and relatively rapid expansion of the whole health care sector in response to the individual and collective demand of the general public. But whatever the cause, the old structure has many shortcomings in the newer circumstances and there does not seem to be an easy transition to a new structure.

The Supply of Manpower and Health Care Facilities and the Concept of Shortage

We come now to consider briefly the determinants of the kinds and quantities of inputs of health care resources, of manpower and of capital facilities such as hospital and other physical structures, and the necessary expensive and sophisticated equipment.

As noted earlier, in the private economy these are determined largely by the economic forces of the market. Employers hire people, from the unskilled to the most highly skilled, on the basis of the wage or salary that must be paid them, compared to the contribution that they can make to the production of products which are sold to consumers. People are employed only to the extent that the products they produce can be sold to the consumers at prices to cover costs of production. Individuals take employment on the basis of the wage or salary and other benefits they receive from these employments. In the general picture, prices are established on the different productive services provided by the country's manpower, these prices taking the form of wages, salaries, or fees for service provided. These wages, salaries or fees lead people into pursuits where they produce goods that consumers want. The prices set on these services — that is, the wage rates, the salaries, the fees — act as the rationing devices that bring the numbers that employers wish to employ into balance with the numbers seeking employment. If, for some reason, the numbers of particular types of persons that employers wish to employ should exceed the numbers seeking employment at the going wage rates, wage rates for that particular employment will rise (as will have the prices of products produced by these types of personnel). These higher wage rates will lead to more persons entering these employments, which will restore wages and product prices towards the former level where there was a balance.

How much the particular increase in demand for the members of an occupation impinges on a particular industry depends on the degree to which people in the occupation concerned are employed by one or several sectors of the economy. If they are employed by several sectors of the economy, one particular sector may obtain additional quantities of manpower from the other sources without it being necessary that prices be raised substantially. If the manpower resource in particular demand is specific to one sector, it is much more likely that an increase in the requirement for that type of manpower will lead to a substantial increase in wage.

The same considerations apply to capital goods. In the private economy, capital goods are purchased and used on the basis of whether their contribution to production will be sufficient to cover the costs of the capital goods employed. If the demand for particular types of capital goods increases, the prices of these capital goods rise and more capital goods of the needed kind are produced. Again the impact of the increased demand for capital goods of a particular kind in a particular sector of the economy depends on the extent to which the capital goods are specific to use in that sector. If they are used in many sectors — as, for example, are general office buildings — it may be possible that in the short run capital goods are attracted from other sectors, and the impact of the increase in demand is spread over many sectors without affecting any one of them markedly. If, on the other hand, the capital goods are specific to a particular sector, the increase in demand is apt to increase substantially the prices of the capital goods in that sector.

Now a matter of significance is the time taken for these kinds of adjustments to be made. The adjustment time depends in part on how specialized the inputs are. If the labour required is unskilled, additional labour may be obtained fairly readily by it being attracted from the production of other products. The same is true of semi-skilled or skilled labour that is employed in many sectors of productive activities. If the labour is highly skilled and highly specialized, its price may rise substantially in the short run. How long it will take for the numbers to be increased will depend on a number of factors. First, if the necessary skills can be provided in a short training period, the numbers of workers can be increased fairly rapidly and it should not take long for balance to be restored. If the training or educational periods are long, the increased numbers may not be available for many years. Second, it depends upon the way in which the skills are given to people, and the need for the skills to conform to a highly uniform mould. If the labour is semi-skilled, if there is some possibility of variation in the nature of the training given, and if the training is done on the job, the response in the numbers being made available can be quite rapid. For example, such took place in the shipyards in wartime: large numbers of workers were trained on the job, and it was not necessary for the same training to be given to all the workers. The response in this case takes place largely through the market mechanism. If, on the other hand, highly trained professionals are involved, these must come through the educational system. Action must then be taken by the educational

authorities largely in the public sector. The ordinary market forces most likely will not play much part in this case, except in attracting recruits to the profession. In such cases the period to produce additional personnel may be very long. For example, in the case of professional people who require elaborate facilities for their training, whose training period is long, and for whom the standard of training is rather precisely specified, a very long time may be involved. It should be emphasized that this kind of training usually is provided in the non-market sector of the economy.

The same features characterize the speed with which capital goods may be made available to particular industries. If the capital goods required are not highly specific, and if they can be produced fairly rapidly, inputs into a particular sector can be increased quite quickly. If, on the other hand, the capital goods are specific so that they may not be obtained from other sectors, and if they have a long gestation period, it may take years before new capital goods are available. In the meantime, if the capital goods themselves are used for production in the private sector, the prices of the products produced by the capital goods will remain high. In the private sector the production of capital goods is in response to market forces. For the provision of capital goods which have a long gestation period, the businesses concerned with providing them must look many years ahead, and this in fact does take place. In the public sector, the response to a need for new capital goods does not come about through market forces. The provision of capital goods, particularly where it takes a long time to produce them, does involve looking ahead, just as in the private sector, unless there are to be serious dislocations before the new goods are made available. The production of schools, highways and hospitals illustrate the kinds of capital goods provided in the public sector. Obviously they are not so much influenced by the market or price system as are capital goods in the private sector.

If we turn now to the health occupations, we find that the more highly skilled manpower, such as physicians, dentists, pharmacists, and nurses, are highly specific to the health sector. Additional manpower with the requisite training is not available to be attracted from without the health sector. In addition, the training requirements for physicians and dentists in particular, but also for some of the other health professions, tend to be very precisely and rather rigidly laid down. In these circumstances, there is a limited alternative of increasing the supply more rapidly than otherwise by producing lesser trained or differently trained personnel. The training of physicians and dentists especially takes a long period. If larger numbers of personnel than hitherto are to be trained, the first requirement may be the provision of new capital facilities. By the time that such capital facilities as medical schools or hospitals or dental schools are built, there is then to be added the period of training for the new personnel. The consequence is that from the time the decision to train additional personnel is taken until the first graduates are made available, ten to fifteen years or more may have elapsed. The less skilled personnel can be trained more rapidly. There is also more possibility of

substitution in their case. An example of the latter is provided by the training of nursing assistants to do some of the things that nurses might otherwise have done.

In the above contexts, the concept of a shortage of manpower or capital goods has a different meaning depending on whether it occurs in a predominantly market-oriented sector, or in one in which government action and the role of institutions such as hospital insurance, medicare, and the professional licensing and regulatory bodies are involved. If the "shortage" occurs in a predominantly market-oriented sector, it is reflected first in a rise in wages of the occupation in short supply. A rise in product prices may accompany or have preceded the rise in wages. The higher product prices ration the commodities among consumers. The shortage, or scarcity, of manpower is reflected in "high" product prices. As the numbers in the occupation increase, the prices of both the labour input and of the products they produce return towards normal.

A shortage in a sector that is not predominantly market-oriented is reflected differently. In the first place, the product may not be bought by individual consumers on a basis in which price is a primary rationing force; some other rationing device than prices must be in effect. As noted earlier, the provision of hospital services and insured medical services is not undertaken in a setting in which individual consumers buy these services and make their choices on the basis of prices that are set to cover the costs of producing the service. If, in this case, the demand for the services of the members of a particular occupation rises, the increase in demand may not be reflected in increased prices of the services of these occupations in the short run, although it is apt to be in the long run. In any event, in this situation price does not play a rationing part. People who wish the services may have to wait for them. Or eventually they may go without the service, particularly if the need for it has passed by the time it is possible for them to obtain it. A different rationing process than in the market-oriented economy takes place.

The same factors apply to scarce capital facilities such as hospitals. Because of the way in which hospitals are financed and operated, hospital services are not priced more highly if they happen to become relatively more scarce than before compared to the wishes of people to use them. A rationing process in the use of the hospital other than the price system is used, and the decisions to increase the hospital facilities are made in response to other conditions than a rise in the prices of the hospital services themselves.

What then do we mean if we say that there is a shortage of a particular kind of health professional? In a major part of the health field at present, the demand for the services of such a professional may have been created on a basis of public choice through governments, reflecting the collective wishes of the members of a community. There may not be enough personnel to provide the services that this public choice has decided are required for ministering to the health of the general

public. Even if the prices (or costs) of these services rise — and they well may not rise, or rise only moderately if institutional or government forces strongly affect prices — prices may not have much effect on the quantity of services demanded if the demand comes from the public sector, either directly or through publicly administered insurance. In this case, the people who wish and are entitled to the services, under the provisions that established their eligibility for the services, may find that they do not have access to a member of the profession, or perhaps the hospital facility, providing the service. In other cases, even if consumers directly pay the full price for a service provided, prices may not perform a rationing function if these prices are strongly influenced by institutional or government action. In all these cases, the decision may be made by public authorities either to increase the numbers of the particular kind of personnel trained, or to use some other system of rationing than that of price. In any event, whether a shortage in fact exists depends upon public choice. A shortage exists if once the public choice of the desired level of services is made, the existing manpower and facilities are insufficient to provide the chosen level of services.

The same factors are relevant to a shortage of hospital facilities or other capital facilities. Hospital facilities are in short supply if they are not large enough to provide the services that a conscious public choice has been decided should be provided, under the institutional conditions that exist at the time.

Coordination and the Efficiency of Resource Allocation in the Health Sector

What are the consequences of the foregoing for the efficiency with which the health sector is organized? How efficiently are the choices of the health services to be provided made, how efficiently are the inputs of labour, capital goods and intermediate products allocated within the sector? Are the choices of technology and the assignment of functions those that promote efficiency? We have seen that the nature of the health sector is such that a part of its economic structure is determined by the price system and the use of prices as guides to action; a part of it is determined by the decisions of a number of licensing and regulatory bodies and accrediting bodies, and by the actions of voluntary associations and non-profit or charitable lay and religious institutions; and a part of it is determined by the decisions of a considerable number of government bodies that may work, in some degree, independently one of the other. The consequence has been that on the one hand all decision-making has not been as widely dispersed (nor could it be) as it has been in the private sector with markets acting as the coordinating feature of the system; on the other hand, the centralized type of decision-making has been dispersed among a number of private or quasi-private regulatory bodies or voluntary institutions, and among various government departments and units without coordination from one central decision-maker. Accordingly the health care sector has been coordinated neither by an all-pervasive market system or similar non-directed coordinating mechanism, nor by the conscious coordination of the forces determining the shape of the health economy by one central decisionmaker. What coordination there has been between and among the play of market forces and of the actions of the centralized decision-makers — the regulatory bodies, the voluntary agencies and the governments and government departments — has come from informal discussion and contact; from a more formal committee structure, both private and public; from overview of a considerable part of the health sector by departments of health; and from periodic more comprehensive reviews of the health sector by governing bodies. It would not be true to say that there has not been a coordinating structure, but it has been a very loose one.

This arrangement has been such partly because certain kinds of judgments can be made only by professionals; partly on account of the nature of the role of traditional non-regulatory but important private institutions; and partly because, owing to the nature of the health care sector itself, various agencies of government have an interest in, and responsibility for, different parts of the health sector. In the latter vein at the departmental level of the provincial government, the Departments of Health, of Education, and of University Affairs, all have interests in different parts of the health sector. (We should note that now there exists the coordinating machinery at the provincial level of the Senior Coordinating Committee of the deputy-ministers or chairmen of departments or commissions, with substantive interest in health matters, and of the Ontario Council of Health which is itself, however, an advisory body.)

The consequences of this structure for the efficiency with which the health sector performs its economic function are not clear, and it would be foolish to make a sweeping statement about how efficiently the health industry is organized. But some coordinating mechanism is required when the decision-making is dispersed. There is a presumption that there is a need for some greater coordinating element in the health care sector than there has been in the past, in the interests of obtaining as high a degree of efficiency of resource allocation as possible, given the nature of the health care sector itself.

The possibility of obtaining greater efficiency through better coordination appears to be substantial, although the problem of obtaining such coordination is not an easy one to solve. The use of a price and market system is not the only means of obtaining coordination for efficiency. Aside from the matter of choice at the most general level of the health care services that are to be provided for the general public, which is not a matter of technical efficiency, there are programming and other organizational techniques for the direction of large-scale operations in ways that promote the achievement of efficiency. The use of these techniques, even with their shortcomings, requires central purview by some central decision-maker *cum* counsellor to other decision-makers. The presence of some one coordinating body that is responsible for seeing that the mixture of dispersed non-market oriented independent decision-making and of market-oriented behaviour leads to consistent actions, and for taking an overall view of the health sector, can go a considerable way to assure the achievement of technical efficiency.

These programming and other organizational techniques are not perfect, and substantial elements of judgment are involved even in making choices at the relatively technical level. But the problems that arise from deliberate and conscious coordination by some central decision-making unit are not limited to health, nor are they limited to government operations. They are present in any large operation in which a price or market system is not the device that provides coordination among the parts. There are the problems of bureaucracy, and there are the problems associated with the working of the non-political human institutional forces in both the private sector and the public sector, as well as those associated with the working of democratic political institutions. But these are not unique to the health sector. The development of some coordinating device — and it is hard to see how it can be other than an overall purview by some central decision-maker — is necessary to ensure technical efficiency. Given appropriate safeguards and good judgment on the part of the central purviewing body it can undoubtedly contribute substantially to obtaining efficiency.

There is a much more difficult problem in the health sector. It arises from the fact that members of the general public and of governments have limited ability to judge the efficacy of the technical health care services that provide health care itself. The problem arises from the fact that the product of the health sector, health care itself, is a nebulous thing. As noted earlier, it has been necessary to rely heavily on the judgment of the members of the senior health professions about the efficacy of the health care services in providing the consumer product, health care. As with most commodities, health care services and health care have dimensions of both quantity and quality though the two are interrelated. The judgments of the members of the health professions about the efficacy of health care services in providing health itself, and about their quality, must be substantially subjective.

In the case of other products that are provided through the market structure, where the consumer is the judge of the product he is obtaining, for better or for worse, products are being put continually to the test of choice by the individual consumer. He is the judge of how the consumption contributes to his welfare and he makes the decisions about which product quality, relative to the product price, yields him the most benefit. In these circumstances, producers are continuously trying new productive techniques that lower costs in producing products (not to mention new products themselves). These techniques may involve the use of different kinds of capital inputs, such as machinery, and the use of labour inputs of different skills than were used hitherto. If they are successful, the consumer accepts the product which he judges to be more beneficial to him at the prices that must be paid for them than are alternative products at the prices charged for them. The consumer does not care how the product is produced, it is the product itself in which he is interested. These products that are produced in new ways may be (though not necessarily) at first of lesser quality than those produced in old ways, but the lowness of price may more than compensate for lower quality. As the new production techniques are improved, the product may improve and become of better quality than those produced by the old processes, and still may be sold at lower prices. In this case there is a continuous objective testing of products. The test is whether the consumer will buy them at the prices at which they sell in the market. This set of conditions leads to a continuous search for new and better (more efficient) ways of producing things.

Such testing of the product, health care, which is produced in the health sector is not possible owing to the limitations of the consumer's knowledge, beforehand, about what health care service is the most suitable for him and, in many cases, lack of knowledge even after he has received treatment of what it has done for him. And health is of such a nature that the dangers of untested health care services being on the market are too great to permit the ordinary market techniques to be used. It is largely for this reason that professional bodies have been assigned the responsibility of assuring the members of the public at large of the quality of the product that is being produced. Such an arrangement is not a new one of course that was improvised for the case of medical services; on the contrary, it is very old. The same provisions were made in a very wide-spread fashion in the Middle Ages in the case of the guilds.

The problems that arise from this arrangement are two-fold. First, those assigned the responsibility for maintaining product quality feel that there must be a set of regulations and rules, to be adhered to rather inflexibly, that determine the qualifications of those admitted to various professions or occupations and limit the functions of those in particular occupations to certain acts or procedures. It will be admitted by members of senior professions that exceptional individuals in one occupation or profession may have abilities or skills that would permit them to do at least some of the things that are restricted to the members of the more senior occupations as well as, or even better than, many of the members of the senior occupations themselves. But with the numbers of people involved in the health occupations and professions, with the statutory provisions of the legislation, with the legal liability that is placed on individuals, hospitals and other institutional bodies, and with the desire of licensing bodies to discharge acceptably the obligations placed on them to maintain quality, the most assured way of being safe is by application of rather rigid rules and regulations without discretionary exception, except possibly in minor matters, either on the part of the regulatory or licensing bodies themselves or on the part of the individual members of the senior professions in judging what functions might be carried out by members of junior professions.

This kind of situation, understandable as it may be, tends to limit the possibilities of innovation, of trying new and less costly ways of doing things such as, for example, modifying the assignment of functions among various types of health occupations or professions with perhaps some moderate variation of training of those who are assigned new and more exacting tasks. It may make difficult the adaptation of institutional facilities to other modes of use. The problem then

is to find techniques that permit innovation and at the same time assure that the general public will not be harmed by being treated in inferior ways. We shall say more on this matter shortly.

A second problem, which we only note, is that it may be difficult for professional bodies as guardians of the public interest to separate this function from their interest in the well-being of the members of the profession itself. There is an undoubted potential for a conflict of interest. Apart from conflicts of interest of which members of the profession may be aware, there may be those of which they are unaware. It may be difficult to separate one's judgment of the public interest from one's judgment of the well-being of a profession itself. We take it. however, that this latter difficulty can be managed, although not easily, at least acceptably. It should be added that professional associations give ample evidence of being aware of this conflict of interest as far as individual members of the professions are concerned. The limitations placed upon what may be done by medical professionals in hospitals and the continuing review by various committees in the hospitals of an individual physician's work by his peers are designed partly to maintain standards of performance and partly to prevent a member of the profession from allowing his economic interests to interfere with his standard of practice.

How, then, may ways be found of permitting innovation and, at the same time, assuring that the general public will not be harmed? Before proceeding we should like to make one thing clear. As we have noted before, we are fully aware that the senior professions — and let us deal with the medical profession as our example — are not averse to innovation as far as treatment provided by the members of their own profession is concerned. Indeed, matters are quite the contrary. One reads continually of the "explosion" of medical knowledge. The members of the medical profession are continuously and very extensively engaged in trying to find new and better ways of providing better medical care. Very elaborate procedures for review of experimentation that involves patients directly have been evolved, to prevent such experiments leading to harm to patients. This experimentation, however, has been predominantly on a scientific and technical level. There has been some experimentation with regard to modes of general delivery of health care, but this experimentation has tended to be rather limited and in many cases not very conclusive. The former type of experimentation has yielded enormous benefits thus far; the latter has borne rather meagre fruit.

What is needed is experimentation in modes of providing general health care to the public through pilot projects with the energy and imagination that has been applied to the scientific and clinical aspects of medical care. That techniques can be found for assuring the safety of patients under such pilot projects can raise little doubt. The techniques already developed for scientific and clinical research can surely be applied to research in the modes of provision of health care to the public. Innovation in such projects should have, if necessary, authorization at the highest level. If there is to be innovation and some change in assignment of

functions, it is necessary that professional licensing and disciplining bodies, public hospitals or individual members of the professions should not leave themselves open to charges of dereliction of duty, or even to legal prosecution because they have not adhered to the letters of the statute or of regulations and orders laid down under provisions made by statute.

The results of such pilot projects require careful evaluation. We have noted that the test of choice on the part of members of the general public in response to prices placed on health care services is not possible. A suitable and powerful alternative must be found. Such evaluation must involve the judgments of the members of the health professions, and particularly the senior health professions, in important ways. But it is to be hoped that also there might be some evaluation on the part of the patients treated under the pilot projects and of others — that is, by the consumers of the health care and the public themselves. While we have dwelt on the nature of the information gap between the providers of health care and those who receive it, we should note a counter force. Although the members of the public must rely on the advice of those in the health professions, they are becoming increasingly sophisticated in their views about what they want and perhaps in their judgments about what they are getting. Their involvement in evaluating new modes of providing health care could be most valuable. That the evaluation be made as systematically, comprehensively, and objectively as possible is most important.

But the use of pilot projects and evaluating techniques by themselves is not enough. It is essential, of course, if the pilot projects have success that the necessary steps be taken with all dispatch on the part of public authorities and others concerned to promote the introduction and use of the better and more efficient procedures of the pilot project on a wide scale.

Some Implications for Policy

We have drawn four main inferences of a general nature about means to increase the adaptability of the health care system in order to improve its effectiveness. In doing so we have kept in mind the need to move with care in making major modifications in the health care structure. It does not make sense to make major commitments of resources to untested new structures for providing health services, when there is any considerable doubt about the outcome of the change and where the cost of failure would be high. As has been noted, the health care field from its nature is one in which there is much disagreement about the relative merits of alternative ways of providing health care. And our present health care structure does not have such shortcomings that potentially expensive major gambles are necessary. At the same time, we have no doubt that substantial improvement can be made. Many desirable changes can be reasonably clearly discerned now, and we have made recommendations where such is the case. In addition, other improvements should be sought immediately and, once identified, should be implemented with all deliberate speed.

First, then, an active program of experimentation in new ways of providing health care is required. A good deal of such experimentation is taking place in Ontario, in other Canadian provinces, and in other countries in which the provision of health care is like our own. A vigorous program of further experimentation in Ontario, through pilot projects and the like, is essential for the achievement of that improvement which potentially may be had. Such experimentation ought to include attempts at adaptation of successful innovations in jurisdictions comparable to our own.

Second, the development and implementation of the means of evaluating experiments, while admittedly difficult, is essential. We have the impression that much of the experimentation has been inconclusive, owing to lack of effective assessment of its outcome. A systematic program of evaluation of the outcome of the experimental programs now being tried and of such further ones as are undertaken is most important.

Third, for various reasons, including the fact that there is considerable dispersion of authority in the health care field, positive action on the part of some one body is required to implement those programs of proven worth. As we see it, this must be a public body.

Fourth, while public bodies must take responsibility for promoting such change, it is highly desirable that it be done in a way that involves as many of the parts of the system as possible in seeking the desired change. The implementation of change is not easy at its best. And it is particularly difficult in a system of the scale and with the institutional characteristics of the health care system. It is most desirable that a system of incentives to seek improvement be used on as widespread a basis as is compatible with the overall objectives of the provision of health care. We are convinced that such incentives can be used on a much wider basis than they are at present.

Chapter 6 Health Care Resources

The economic and institutional structure of the health care sector described in the preceding chapters is the principal determinant of the kinds and quantities of different health care resources that exist presently in Ontario. It determines also in large part the kind and quality of health goods and services that are available to residents of Ontario. In addition to providing direct health care in the different subsectors of the health care sector, a portion of these human and non-human resources is, of course, involved in the training, education and production of new health care resources. A survey of these resources thus will provide concrete evidence by means of which the nature of the economic structure of the health care sector in Ontario can be examined.

Outline

Information on the overall size of the health care sector in relation to the entire economy and information on the size of the different subsectors of the total health care sector are provided first. These details are followed by a brief description of the geographic distribution of the major health care occupational groups. The remainder of the chapter is then devoted to an "inventory" of individual kinds of health care resources in Ontario. Human health care resources are dealt with in the first part of this inventory. Taking the major occupational groups in turn, first, we review the numbers of personnel in a particular group in recent years; second, we indicate the size and nature of the education or training programs from which new members of the occupation have come and are expected to come; and third, we present information on the ways in which members of a given occupational group provide health care. In so describing the patterns through which health care resources combine to provide health goods and services, we describe aspects of the health care system. Certain insights into the nature of the

¹Since there is no single agency undertaking a systematic collection of all the relevant health statistics, the tables presented are derived from a variety of sources. Furthermore, they are in some cases inadequate for the purpose of compiling an accurate inventory of health care sources. Manpower data come largely from the records of some twenty different professional associations or registering bodies. Information on hospitals is taken from the Dominion Bureau of Statistics publication, *Hospital Statistics*, and from the annual report of the Ontario Hospital Services Commission. The various institutions involved have supplied information regarding the education and training of health personnel.

The data are much less adequate than we would have wished. However, we did not believe it within our compass to get into substantial expense in developing the data ourselves. We are fully aware of the inadequacies of the data but believe that they are still most useful.

relationship between the health care system and the economic structure can be obtained. The second smaller part of the inventory is then concerned with hospitals, the principal non-human resource in the health care sector.

Dimensions of the Health Care Sector

Before the nature and quantity of the many kinds of resources that comprise the health care sector are examined, it is useful to consider the size of this sector relative to the entire economy — that is, to consider the volume of society's resources that have been allocated to the provision of health care. We will describe the outcome of the interaction of the economic structure of the health care sector with that of the economy at large.

There are two commonly used measures of the size of the health care sector: the dollar value of expenditures on health care; and the size of the labour force engaged directly in the health care sector. The inclusion of expenditures on both human and non-human resources in the first of these probably makes it more comprehensive than the second; however, data describing the second are perhaps more accurate and more readily available than data describing the first.

Health Care Expenditures

Personal and government expenditures on health goods and services for all Canada are presented in Table 6.1 for 1965. While the data are for all Canada, their composition is probably fairly representative of Ontario.

TABLE 6.1 Expenditures on Health Care in Canada, 1965 (millions of dollars)

| Type of health care | | 1965 | 1966 |
|---|-------|-------|-------|
| Personal Health Care | | 4 400 | |
| Hospitals | 4.400 | 1,432 | 1,651 |
| Active treatment | 1,126 | | |
| Mental | 211 | | |
| Tuberculosis | 26 | | |
| Federal (excluding DND) | 70 | | |
| Physicians' services | | 545 | 605 |
| Prescribed drugs | | 149 | 190 |
| Dentists' services | | 160 | 176 |
| Other personal services | | 155 | 193 |
| Total | | 2,441 | 2,815 |
| Public Health | | 142 | |
| Federal | 72 | | |
| Provincial | 70 | | |
| | | 2,583 | |
| Hospital capital expenditures | | 220 | 229 |
| All health expenditures (excluding education) | | 2,803 | |

Source: J. E. Osborne, The Economics and Costs of Health Care, Research and Statistics Memo, Department of National Health and Welfare, 1965 (unpublished).

Some items are not included. The most serious omission is expenditure on health education. In addition, municipal expenditures on health services² and personal purchases of non-prescribed drugs have been omitted, as well as non-hospital capital outlays. Accordingly, the total expenditure indicated above most decidedly underestimates the volume of resources allocated to the health care sector.

In 1965 the value of all goods and services produced in Canada as indicated by Gross National Expenditure was \$52,203 million. Taking the \$2,803 million from Table 6.1 as a minimum estimate of expenditures on health care, we can state that roughly 5.4 per cent of Canada's resources were allocated to the provision of health care in 1965. The health care sector thus stands as one of the major productive sectors in the Canadian economy.

Two subcategories of expenditures on health care are also worth looking at briefly, even though complete data are not available for more recent years. Personal health care expenditures in Canada for 1967 were \$3,381 million. They approached 9 per cent of personal expenditure on all consumer goods and services.³ Capital expenditures on hospital construction and machinery were \$240 million in 1967. This figure represented 1.5 per cent of total public and private gross fixed capital formation, and 8.5 per cent of all government capital expenditures.⁴

Health Care Labour Force in Ontario

In Ontario in 1961, some 105,413 persons were employed in the health care sector. Of this total, 77,231 were women and 28,182 men. These data are presented in Table 6.2.

The 105,413 health care personnel represented 4.4 per cent of Ontario labour force, which was 2,393,015 in 1961. The predominance of female workers is evident. Approximately 11 per cent of the total female work force was employed

TABLE 6.2

Labour Force Engaged in the Provision of Health Services, Ontario, 1961

| | Male | Female | Total |
|-----------------------|--------|--------|---------|
| Hospitals | 18,698 | 64,742 | 83,440 |
| Offices of physicians | 5,318 | 4,949 | 10,267 |
| Offices of dentists | 2,141 | 1,949 | 4,090 |
| Other health services | 2,025 | 5,591 | 7,616 |
| Total | 28,182 | 77,231 | 105,413 |

Source: 1961 Census of Canada, Vol. III, Part II "Labour Force: Industries" Queen's Printer, Ottawa, Table 1.

²Municipal governments spent eighty million dollars on health in 1965 but it is not known how much of this was spent on public health services as distinct from personal health services.

³DBS, National Accounts, Queen's Printer, Ottawa, 1967, Table 14.

⁴DBS, Public and Private Investment in Canada, Outlook 1969, Queen's Printer, Ottawa, 1969.

in the health care sector compared with less than 2 per cent of the male labour force. The hospital, of course, is the work setting of by far the largest part of the female personnel.

The relative growth of the health care sector is seen clearly from an examination of changes in the percentage of the labour force devoted to the provision of health care. In 1951, some 56,252 persons in Ontario were employed in the health sector.⁵ Of this total, 37,907 were women; 18,345 were men. The Ontario labour force in that year was 1,884,941,6 so that health care personnel accounted for 3.0 per cent of the work force.

Comparable data are not available for more recent years. It is possible, however, using several different sources to piece together an estimate for 1967. In that year there were 100,200 persons employed in public general hospitals, approximately 1,100 in tuberculosis sanatoria, and 16,400 in mental institutions. An estimated 31,400 persons worked outside the hospitals. This sum of 149,100 represents 5.3 per cent of a labour force of 2,834,000 persons.

As a measure of the province's manpower resources currently utilized by the health sector, our estimate of 5.3 per cent is likely to be well on the low side. Besides those directly employed in hospitals or as health professionals, technicians and assistants, numerous other people are employed indirectly in the provision of health services. Omitted in our count are those employed in the construction of hospitals and other facilities, in government health departments, in the manufacture and distribution of medical supplies, and in the training of health personnel. The use of labour in the health sector is therefore a sizable one in terms of total labour force.

We might also emphasize the rapid growth rate of the health care labour force. The calculations above indicate that the number of health workers has been growing at a considerably more rapid rate than the labour force as a whole: in 1951, one out of every thirty-three members of the work force was employed directly by the health care sector; in 1961, one out of every twenty-three; and in 1967, one out of every nineteen.

Overall Inventory of the Health Care Sector

Before proceeding to review the numbers, training and educational programs, and pattern of health care delivery of each of the occupational groups in turn,

6Ibid., persons fourteen years of age and older.

⁵1951 Census of Canada, Vol. IV, "Labour Force: Occupations and Industries", Queen's Printer, Ottawa, Table 16.

⁷OHSC, Annual Report (Statistical Supplement), 1967.

⁸DBS, Tuberculosis Statistics 1967, Queen's Printer, Ottawa, 1969. 9DBS, Mental Health Statistics, 1967, Queen's Printer, Ottawa, 1969.

 ¹⁰Adding 9,100 physicians; 2,700 dentists; 13,000 dentists' and doctors' assistants (estimating one assistant for every dentist or doctor); 4,400 pharmacists; 800 dental technicians; 500 optometrists; 400 ophthalmic dispensers; 300 chiropractors; and 200 osteopaths and naturopaths.
 11DBS, Monthly Report on *The Labour Force*, Catalogue No. 71-a, Vol. 23, No. 6.

we draw attention to the relative size of the different subsectors of the health care sector, to an overall inventory of both health care manpower and hospital facilities, and to the geographic distribution of human health care resources.

The Relative Size of the Subsectors of the Health Care Sector

The information contained above in Tables 6.1 and 6.2 provides an excellent view of the relative size of the hospital, direct medical care, and non-medical care subsectors described in Chapter 5 (unfortunately, comprehensive data on the education and research subsector are not available). We note that the hospital subsector is by far the largest of the subsectors. It is almost three times as large as the second largest, the direct medical care subsector. The non-medical care subsector is almost as large as the direct medical care subsector according to the data in Table 6.1; and if the omitted data on purchases of non-prescribed drugs were considered, the non-medical care subsector would likely be the second largest of the subsectors.

When the data in Table 6.2 are evaluated to take account of differences in the value of the health care provided by individuals in various professions and disciplines, the relative size of the subsectors indicated in Table 6.1 is confirmed. If we take annual income as a rough indicator of the differences in the value of the health services provided by individuals in the different personnel groups, then the hospital sector is seen to be about three times the size of each of the direct medical and the non-medical care subsectors.

Overall Inventory of Skilled Health Care Manpower, 1968

The key health care resource is the body of skill and expertise residing in the different health care personnel. In 1968 there were approximately 100,000 skilled health care personnel serving the more than seven million Ontario residents. Data on the composition of this health care labour force are presented in Table 6.3.12 We note that physicians and nursing personnel still account for over 80 per cent of health care personnel. Also worth noting is the predominance of nurses. By themselves, all nursing personnel account for over 70 per cent of skilled health care manpower, registered nurses and registered nursing assistants, and students of both categories account for over 50 per cent of skilled health care manpower. It is also interesting to note that over 5,000 of these individuals are involved in the provision of intermediate health goods and services. Laboratory technologists, for example, have virtually no direct contact with patients. To a lesser extent, the same is probably true of groups such as pharmacists, orderlies and dental secretaries.

¹²In all cases, we have tried to exclude from our data trained personnel who are not practising. For orderlies, other hospital nursing personnel, dietitians, medical record librarians and radiological technicians, the numbers are of those working in hospitals. Where 1968 figures were unavailable, earlier ones have been substituted as estimates of current manpower supply.

TABLE 6.3 Numbers of Skilled Health Workers, Ontario, Various Years

| | | | | Year |
|---|-----------|--------|-----------|------------------|
| PHYSICIANS | | | | |
| Fully licensed (on the register) | | | | |
| General practitioners | | 4,9081 | | |
| Certified specialists | | 4,6221 | 9,530 | (1968) |
| On the Special Register | | | 674 | (1968) |
| Internes | | | 334 | (1966) |
| Nursing Personnel | | | | |
| Registered nurses | Full time | 23,576 | | |
| | Part time | 10,607 | 34,183 | (1967) |
| Student nurses | | | 8,811 | (1966) |
| Registered nursing | Full time | 8,348 | 10.150 | (10(7) |
| assistants | Part time | 1,802 | 10,150 | (1967) |
| Trainee nursing assistants | | | 1,285 | (1966) |
| Orderlies | Full time | 3,046 | 2 200 | (10(() |
| D1:-4::- | Part time | 243 | 3,289 | (1966) |
| Psychiatric nurses in mental institutions | | | 149 | (1066) |
| | | | | (1966) |
| Student psychiatric nurses | T 11 | 10.040 | 34 | (1966) |
| Other hospital nursing | Full time | 12,843 | 14,363 | (1066) |
| Driver a Department | Part time | 1,520 | 14,303 | (1966) |
| Dental Personnel | | | 2 010 | (1060) |
| Dentists | | 170 | 2,810 | (1968) |
| Dental specialists | | 178 | 207 | (1968) |
| Dental hygienists | | | 297 | (1967) |
| Dental technicians | | | 860 | |
| Dental assistants | Full time | 2,535 | 2.022 | (10(0) |
| D . 1 | Part time | 287 | 2,822 | (1968) |
| Dental secretaries | Full time | 641 | 753 | (1968) |
| D | Part time | 112 | | |
| PHARMACISTS | | | 4,461 | (1968) |
| OPTOMETRISTS | | | 519 | (1968) |
| Ophthalmic dispensers | | | 470 | (1968) |
| Ophthalmic assistants | | | 300 | (1966) |
| CLINICAL PSYCHOLOGISTS | | | 238 | (1966) |
| MEDICAL AND PSYCHIATRIC SOCIA | | | 105 | (10(7) |
| in mental hospitals—M.S.W. | or B.S.W. | | 125 96 | (1967) (1967) |
| —other | D C W | | 76 | (1967) |
| in general hospitals—M.S.W. —other | or B.S.W. | | 67 | (1967) (1967) |
| | | | 1,106 | (1968) |
| PHYSIOTHERAPISTS | | | 299 | (1968) |
| OCCUPATIONAL THERAPISTS | | | 386 | |
| REGISTERED MASSEURS | | | 36 | (1968) |
| REMEDIAL GYMNASTS | | | 36 | (1967) |

TABLE 6.3 (Continued)
Numbers of Skilled Health Workers, Ontario, Various Years

| | | | | Year |
|------------------------------|------------------------|--------------|-------|------------|
| SPEECH PATHOLOGISTS AND AUDI | OLOGISTS | | 74 | (1968) |
| HEARING AID DISPENSERS | | | 167 | $(1969)^2$ |
| DIETITIANS | Full time Part time | 321 31 | 352 | (1968) |
| MEDICAL RECORD LIBRARIANS | Full time Part time | 295 27 | 322 | (1968) |
| MEDICAL LABORATORY TECHNOL | OGISTS | | | |
| in general hospitals | Full time Part time | 2,771 275 | 3,052 | (1968) |
| in private laboratories | Full time Part time | 270 95 | 365 | (1967) |
| RADIOLOGICAL TECHNICIANS | Full time Part time | 1,148 87 | 1,235 | (1968) |
| E.E.G. TECHNICIANS | | | 84 | (1969) |
| CHIROPRACTORS | | | 532 | (1968) |
| Naturopaths | | | 150 | (1965) |
| PODIATRISTS | | | 69 | (1967) |
| OSTEOPATHS | | | 52 | (1968) |

¹ Estimate, instead of an actual count.

Sources:

The numbers indicate the table or page in this chapter in which the sources for the data will be found: student nurses, 6.14; registered nurses, 6.13; registered nursing assistants, 6.22; all other nursing personnel, 6.18; dentists, 6.24; dental specialists, 6.28; dental hygienists, 6.30; dental technicians, p. 177; dental assistants and secretaries, p. 176; pharmacists, 6.32; optometrists, 6.38; clinical psychologists, p. 190; social workers in general hospitals, p. 190; physiotherapists, 6.45; speech pathologists and audiologists, p. 191; dietitians, 6.53; medical record librarians, 6.48; medical laboratory technologists in general hospitals, 6.40; radiological technicians, 6.40; chiropractors, 6.43; podiatrists, 6.43; osteopaths, 6.43.

Sources for data not appearing in the Manpower Section are given below.

Internes: DBS, Hospital Statistics, Vol. III, 1966, p. 47.

Ophthalmic assistants: estimate obtained directly from the Ontario Medical Association, Section on Ophthalmology.

Social workers in mental hospitals: DBS, Mental Health Statistics, Vol. III, 1966, Table 19.

Registered masseurs: number of registrants obtained directly from the Board of Directors of Masseurs.

Hearing aid dispensers: information obtained from the Hearing Aid Dealers Association.

E.E.G. technicians: estimate received from the Canadian Association of Electroencephalograph Technicians.

Medical laboratory technologists in private laboratories: see Chapter 19 of this Report.

Remedial gymnasts: estimate obtained from the Association of Remedial Gymnasts of Ontario.

Occupational therapists: number given is active members in Ontario of the Canadian Association of Occupational Therapists.

Ophthalmic dispensers: number of registrants obtained directly from the Board of Ophthalmic Dispensers.

Physicians: estimated numbers received from the College of Physicians and Surgeons of Ontario.

² As at August.

When these different health care occupations are further subdivided according to the age and experience of the individuals, their natural and acquired abilities, and the way in which as individuals they combine with other health care resources, we end up with an enormous number of essentially distinct health care resources. And of course, in addition to these health care resources, there are innumerable non-human health care resources such as hospitals and group clinics, and intermediate products such as medical supplies and drugs. These other resources then combine with the human health care resources to produce the health goods and services consumed by Ontario residents.

Finally, division of each of these numbers by the population of Ontario can yield a health care personnel:population ratio; for example, the number of physicians per 10,000 persons can be easily calculated. This and similar ratios can then be used to compare roughly the availability of health care manpower in Ontario with that in other provinces or countries.

Overall Inventory of Hospital Facilities

The human health care resources reviewed in the preceding section commonly combine with non-human resources to provide the health care consumed by Ontario residents. These other resources include the physical plant and equipment of hospitals; the offices of physicians and dentists, including land, buildings and equipment and other such facilities; and intermediate products, such as medical supplies and pharmaceutical products. The principal non-human health resource is, however, the hospital and the equipment contained therein. An overview of the kind and quantity of hospitals found in Ontario can be gleaned from the data in Table 6.4. We note that active treatment, public general hospitals, exclusive of the beds provided for psychiatric, convalescent and chronic care, account for almost 50 per cent of all hospital beds in Ontario; if the psychiatric, convalescent and

TABLE 6.4
Number of Hospitals and Beds, by Type of Hospital, Ontario, 1968

| Type of hospital | | Hospitals | Beds ¹ |
|----------------------|----------------------------|----------------|---------------------|
| Public general and | allied special | | |
| Active treatment | Public general | 190 | 36,080 ² |
| | Red cross | 13 | 179 |
| | Convalescent hospitals | 8 | 799 |
| Convalescent | Units in general hospitals | 6 | 343 |
| | Chronic hospitals | 17 | 3,155 |
| Chronic | Units in general hospitals | 77 | 3,458 |
| | Psychiatric hospitals | 2 ³ | 255 |
| Psychiatric | Units in general hospitals | 35 | 1,000 |
| Federal hospitals an | d nursing stations | 104 | 1,234 |
| Total | | 240 | 46,614 |
| Private general and | allied special | | |
| Active treatment | | 17 | 667 |
| Chronic | | 22 | 517 |
| Total | | 39 | 1,184 |

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TABLE 6.4 (Continued)

| Nursing homes tem for chronic care | porarily approved | 35 | 558 |
|---------------------------------------|-------------------------------|--------------------------|--------------|
| Hospitals for psychi | atric disorders | | |
| Hospitals for | Public-provincial | 9 | 6,539 |
| Retardates | Units in sanatoria Private | 9 3 3 | 279 283 |
| Hospitals for Alcoholics | Provincial | 15 | 32 |
| Hospitals for | Public-provincial | 1 | . 111 |
| Emotionally dis- | Public-lay | 1 | 18 |
| turbed children | Private | 3 | 81 |
| Psychiatric | Public-lay | 16 | . 80 |
| hospitals | Units in sanatoria | 2 | 177 |
| | Units in federal hospitals | 2 2 ⁷ 3 | 697 |
| | Private | | 330 |
| Mental | Public-provincial | 15 | 15,507 10 |
| hospitals | Public-other Private | 1 | 110 |
| Total | | 46 | 24,254 |
| Tuberculosis | Public | 118 | 1,021 |
| Hospitals | Federal | 1 | 150 |
| Total | | 12 | 1,171 |
| All hospitals | | 372 | 73,781 |

¹ Bassinets are not included.

² The figure given by OHSC (37,191 beds) less the number of designated psychiatric beds. Does not include convalescent and chronic units in general hospitals.

³ The Clarke Institute of Psychiatry and the Donwood Foundation.

4 Excludes psychiatric beds, the Canadian Forces Hospital, Kingston with 125 beds, and five other Department of National Defence Hospitals with a total of 135 beds.

⁵ Does not include the Donwood Foundation, an OHSC hospital for alcoholics.

⁶ Does not include the Clarke Institute, an OHSC psychiatric hospital.

⁷ Figure taken from DBS, *Mental Health Statistics*, 1966, Vol. III, Queen's Printer, Ottawa, 1968, Table 11.

⁸ Beds in sanatoria not designated as tuberculosis beds are excluded.

⁹ The total excludes the Workmen's Compensation Board Hospital and Rehabilitation Centre with 520 beds and the Department of National Defence Hospitals referred to in footnote 4 above.

Sources: Ontario Hospital Services Commission, Annual Report (Statistical Supplement), 1968, for public and private general and allied special hospitals and nursing homes.

DBS, List of Canadian Hospitals, 1969, Queen's Printer, Ottawa, 1969, for hospitals for psychiatric disorders and tuberculosis hospitals.

chronic care beds are included, they account for well over half of all the beds. The second major group of hospital beds are those devoted to the care of patients with psychiatric disorders; they account for another 35 per cent of all beds. Finally, we note that hospitals for tuberculosis patients, containing 1,171 beds, account for less than 1.6 per cent of all hospital beds in Ontario.

Data on the ownership of hospitals in Ontario provide a rough indication of the extent and nature of the public economy in the hospital sector. Interestingly, with some 1,988 beds, privately owned or proprietary hospitals account for approximately 2.7 per cent of the total number of hospital beds in Ontario. Of the remaining beds and thus those in the public economy, some 2,081 beds, or approximately 2.7 per cent, are in federal hospitals. Thus principal participants in the economic structure of the hospital sector are the voluntary charitable and religious bodies, and the provincial (and municipal) government.

Geographic Distribution of Health Care Resources

The data on the availability of health care manpower presented in the previous section are excellent indicators of the overall level of health care manpower in Ontario. They are quite inadequate, however, for the purpose of describing the availability of health care resources to each and every resident of Ontario. For this purpose we require information on the availability of manpower in different geographic areas of the province or in communities of different sizes. Data describing the availability, in 1961, of health care manpower in communities classified by size of population are presented in Table 6.5; nineteen different health care occupations are included in this table. Communities of less than 10,000 persons seem to have the smallest number of the different health care occupations. The 10,000 to 30,000 person community, however, is not always in the second worst position. For example, these communities have the best physician: population ratio, followed closely by that for the metropolitan areas. Noticeably, medical and dental technicians are concentrated in the largest population centres.

For some of the major occupational groups, it is possible to note the change in distribution over time as follows, by supplementing the data of Table 6.5 with other information.

Dentists

In 1951 the highest dentist:population ratio in Ontario was in communities of from 10,000 to 30,000 persons where there was one dentist for every 1,491 persons. The lowest dentist:population ratio was found in areas of under 10,000 people where there was one dentist for 3,090 people. The more urban areas had one dentist for every 1,915 persons. In 1961 communities with between 10,000 and 30,000 people still had relatively the largest number of dentists (1:1,918). Communities with fewer than 10,000 persons had on average only one dentist for every 7,951 persons. In 1961 the ratio for metropolitan areas had deteriorated to one dentist for every 2,195 people. In 1966 there was one dentist for every 2,149 people in metropolitan areas. The ratio in areas of less than 10,000 people had improved in 1966 to 1:4,520.

Laboratory Technologists

In 1951 the best laboratory technologist ratio was found in areas of 30,000 to 100,000 persons (1:451). The least populated communities had only one labora-

¹⁸We use data for 1961, since that census year is the latest date with relatively comprehensive information.

Numbers and Percentages Employed and Group: Population Ratio of Various Health Occupations in Ontario, by Size of Community, 1961 TABLE 6.5

| Population | 6,236,092 | 3,253,626 52 684,672 | 596,432 | 1.701.462 | 27 | Population | 6,236,092 | 3,253,626 52.1 | 684 572 | 10.9 | 100 | 590,432 9.5 | ļ | 1,701,462 | 27.50 | 1 |
|--|--|--|---|-------------------|---------------------------------|--|------------------|---|------------------|------------|-------------------|--|-------------------|--|------------|-------------------|
| Osteo- paths and chiro- practors | 495 1:12,598 | 269 54.34 1:12,095 | | | | Opticians | 764 | 500 65.44 | 1:6,507 | 12.04 | :7,441 | 1 1 | 1 | de promotion de la constante d | 1 | |
| Optome- trists | 414 | 235 56.76 1:13,843 | | | - | Attendants in doctors and dentists offices O | 1,803 | | | | | 1 1 | | | 1 | |
| Physical and occu-pational thera-pists | 1,128 | 787 69.73 1:4,134 145 | 1:4,721 | | 11 | Atter in do and d | | | | | | | | | | |
| Medical and dental tech-nicians | 4,887 | 3,356 68.46 1:969 670 | 1:1,022 387 7.89 | 1:1,541 | 9.98 | Social welfare workers | 4,173 1:1,493 | 3,086 73.76 | 1:1,054 | 10.74 | 1:1,528 | | 1 | 1 | - | |
| Nurses in training | 7,588 | 4,659 61.03 1:698 1,743 | 1:393 | 1:616 | 3.45 | Dietitians | 829 1:7,522 | 574 69.24 | 1:5,668 | 12.30 | 1:6,711 | 1 1 | 1 | | - | - |
| Graduate | 24,579 | 14,035 57.10 1:232 3,569 | 3,017 | 3.948 | 16.07 | | 24,049 1:259 | ,858 9.31 | 274 | 5.87 | :179 | 3.30 | 1:187 | ,1773 | 21.52 | :329 |
| Pharma- cists | 2.981 | 1,966 65.86 1:1,655 362 | 347 | 1:1,719 | 10.39 | Nurse's aides and assistants | | | | | | | | 7, | | |
| Dentists | 2.299 | 1,482 64.32 1:2,195 12,195 | 1:2,344 311 13.50 | 1:1,918 | 9.51 | Others | 8,013 1:778 | 5,611 69.58 | 1:580 | 11.64 | 1:734 | 8.44 | 1:882 | 793 | 10.34 | 1:2,146 |
| Physicians and surgeons | 8,040 | 5,394 66.89 1:603 1,007 | 1:680 | 1:602 | 14.14 | Others 1 | 1,119 | 664 59.34 | 1:4,900 | 13.05 | 1:4,689 | | 1 | 1 | 1 | |
| Total health profes- sions | 52,621 | 32,361 61.50 1:101 8,168 | 1:84 6,628 | 1:90 | 10.38 | er th tions | 210 696 | 160 76.19 | 335 | | | | | | | |
| Health and Welfare Owners or Managers | 1,630 | 863 52.90 1:3,770 213 | 1:3,214 | 11 | 11 | Other health occupations | 1:29,696 | 7 | 1:20,335 | | - | 1 1 | - | 1 | | |
| | All Ontario Group: pop. ratio Metronolitan areas | (over 100,000) % of total Group: pop ratio Population 30,000–100,000 | Group: pop. ratio Population 10,000–30,000 % of total | Group: pop. ratio | % of total Group: pop. ratio | | | Metropolitan areas (over $100,000$) % of total | Group pop. ratio | % of total | Group: pop. ratio | ropulation 10,000–50,000 % of total | Group: pop. ratio | Population under 10,000 | % of total | Group: pop. ratio |

Optometrists, osteopaths, chiropractors and "others".

² Optometrists, osteopaths, chiropractors, therapists, "others", dietitians, social workers, opticians

³ Probably includes attendants in doctor's and dentists' offices. Source: DBS, Census of Canada, Series 3.1 Labour Force—Occupations by Sex.

tory technologist for every 1,111 persons. Areas of over 100,000 population had a ratio of one to every 484 persons. Information on laboratory technologists is not available for 1961 and 1966.

Nurses

In 1951 areas of from 10,000 to 30,000 and 30,000 to 100,000 had the best nurse:population ratios; on average they had one nurse to 216 and 217 persons, respectively. The smallest population areas fared much worse, with one graduate nurse for every 554 persons. A similar pattern existed in 1961, as again the areas of from 10,000 to 100,000 had the best ratios (1:191 and 1:198) and the smallest areas had the worst. In all categories the nurse:population ratio had improved in 1961. Unfortunately, information is not readily available for 1966.

The ratio of nurses-in-training to population was best in areas of from 30,000 to 100,000 in both 1951 and 1961.

Osteopaths and Chiropractors

In 1966 the highest chiropractor:population ratio was found in areas with a population of between 10,000 and 30,000 people (1:7,047). Metropolitan areas and those with populations under 10,000 had about one chiropractor for every 14,000 people. The information on osteopaths and chiropractors in 1961 is too incomplete to draw conclusions. In 1951 osteopaths and chiropractors were again most prevalent in areas of 10,000 to 30,000 persons (1:6,398), although the areas of larger population were much closer than in 1966 with ratios of about 1:7,500 persons.

Physicians

In 1951 all areas of over 10,000 had about one doctor to every 610 persons. The ratio in areas of less than 10,000 persons was 1:1,200. In 1961 the picture had changed somewhat. Metropolitan areas and areas of 10,000 to 30,000 people had ratios of about 1:600. Areas of 30,000 to 100,000 persons had ratios of 1:680. The physician:population ratio had decreased greatly in areas under 10,000 population with only one doctor for every 2,600 persons. Similar information is not readily available for 1966.

Physio and Occupational Therapists

In 1961 the largest population areas fared best, having one therapist for every 4,134 persons. In 1966 the largest areas still fared best, although the ratio had fallen to 1:5,884. Areas with populations under 10,000 had one physiotherapist for every 12,751 persons in 1966.

Optometrists

In 1966 there was one optometrist for every 6,736 persons in communities of 10,000 to 30,000 persons. Areas of less than 10,000 had the second highest ratio of 1:9,392. Communities of 30,000 to 100,000 persons had one optometrist for

every 11,500 persons and metropolitan areas had one optometrist for every 14,272 persons. Complete figures for 1961 are lacking; there was, however, one optometrist for every 13,843 persons in metropolitan areas.

In general, it appears that rural and semi-rural communities of less than 10,000 persons have by far the smallest supply of health care manpower. In contrast, the most densely populated communities do not necessarily have the largest supply of manpower. The effect of both market and non-market factors on individual members of the health care labour force could well be expected to lead to the distribution of manpower that we have described.

One final cautionary note is in order. These data on the distribution of health care manpower can give but a rough indication of differences in the availability and consumption of health care. First, rural residents may well by choice travel many miles to receive health care in large urban centres. Second, the quality of the personnel as seen through their age, educational background and acquired abilities may well on average vary systematically with size of community. This effect might be expected to reduce the value of services received by rural residents.

Selected Detailed Data on Health Care Manpower

Physicians

The simplest measure of the supply of physicians' services in a community is provided by the physician:population ratio; this relates directly the number of physicians to the number of persons. Despite its many limitations, this ratio is commonly used to indicate the differences in the availability of physicians' services from

TABLE 6.6

Physicians Licensed and Resident in Ontario, 1921 to 1968, and the Physician:Population Ratio

| Year | Number of fully licensed physicians on the Register | Population | Population ratio | Number of physicians on the Special Register |
|------|---|------------|------------------|---|
| | (June) | (June) | | |
| 1921 | 3,459 | 2,934,000 | 848 | - |
| 1931 | 3,934 | 3,432,000 | 872 | *************************************** |
| 1941 | 4,195 | 3,788,000 | 903 | - |
| 1951 | 5,365 | 4,598,000 | 857 | 3(1950) |
| | (December) | (December) | | ` ′ |
| 1961 | 8,136 | 6,298,000 | 774 | 15 |
| 1962 | 8,236 | 6,427,000 | 780 | 71 |
| 1963 | 8,478 | 6,568,000 | 775 | 92 |
| 1964 | 8,688 | 6,723,000 | 7 78 | 144 |
| 1965 | 8,702 | 6,888,000 | 792 | 228 |
| 1966 | 8,932 | 7,078,000 | 792 | 350 |
| 1967 | 9,110 | 7,240,000 | . 795 | 490 |
| 1968 | 9,502 | 7,321,000 | 770 | 674 |

Source: Ontario Council of Health, Background Paper—Ontario Medical Manpower.

For 1968, College of Physicians and Surgeons of Ontario.

one time, or from one place, to another. In Table 6.6 we present data on the number of physicians, the population and the estimated physician:population ratio from 1921 to 1968. We see that in 1968, there were 9,502 physicians in Ontario to serve a population of 7,321,000; that is, there was one physician for every 770 persons. These crude physician:population ratios must be interpreted with caution, for they neglect such important considerations as the type of physicians referred to and the extent to which physicians are accessible to those who require their services. Furthermore, the 1968 figure of 9,502 physicians in Ontario, for example, represents only those physicians on the Register of the College of Physicians and Surgeons of Ontario who are residents of the province. It does not include the physicians on the College's Special Register, whose numbers are given in the last column of Table 6.6, nor the student physicians on the Educational Register. In 1968 there were 674 physicians on the Special Register and 1,056 student physicians on the Educational Register.

We note that the supply of physicians in the 1960's was significantly greater relative to population than that in previous decades; the number of physicians has grown more rapidly than has the population over the period 1921 to 1968. During the 1960's, however, little change in the physician:population ratio has been recorded. This, coupled with the fact that the demand for health care has grown extremely rapidly during the last decade, suggests that those institutions responsible for the training and education of new physicians have not responded at all quickly to the coincident increased demand for physicians. Indeed, but for the large immigration of physicians, these ratios for the 1960's would be much worse.

Confirming this view that the educational institutions are responding to the increased demand for physicians, if at all, with a long lag are the data presented in Table 6.7 on the number of graduates from Ontario medical schools. Though the population in Ontario has been growing steadily and rapidly, the number of graduates has increased less than 14 per cent from 303 in 1962-1963 to 345 in 1967-1968. Indeed, in three of the intervening years the number of graduates was even less than the 1962-1963 figure. Beginning in 1972, however, it will rise rapidly to approximately 550 graduates in 1976.

TABLE 6.7

Total Number of Graduates from Ontario Medical Schools by Years, 1962-1963
to 1967-1968

| | Total | Female |
|-----------|-------|--------|
| 1962–1963 | 303 | 29 |
| 1963–1964 | 276 | 29 |
| 1964-1965 | 288 | 31 |
| 1965–1966 | 320 | 49 |
| 1966–1967 | 298 | 40 |
| 1967–1968 | 345 | 43 |

Source: DBS, Survey of Higher Education, 1967-68, Table 23, p. 47.

Number of Physicians Added to the Register in Ontario, by Province or Country of Origin of Medical Degree, 1930-1968 TABLE 6.8

| Other countries Total | | 31 370 | | 43 454 | 45 449 | 55 497 | 39 497 | | | | | | 16 389 | | 435 | (28) | 400 | (31) | 463 | (44) | 205 | 966 | (00) | 899 | (88) |
|---|-----------|--------|------|--------|--------|--------|--------|-------|-------|-------|------|------------|--------|------|-------|---------------------|-------|---------------------|-------|-------------|---------------|-------------|------|--------|-------------|
| Hungary Germany | 8 9 | 6 4 | 6 9 | 4 15 | 7 25 | 5 28 | 4 31 | 5 10 | | 38 10 | 32 5 | 10 8 × | 4 4 | | 32 | (,) | 37 | (10) | 36 | (10) | 05 | 5 | | 108 | (42) |
| Jia, S.A. Near East S.A. and Asia | | 7 | 33 | 7 | c | 00 | 9 | 10 | 7 | 9 | m (| 10 | · W | | | | | | | | | | | | |
| U.K. and N.Z., S.A. Ireland and U.S.A. | 79 17 | 20 2 | 31 2 | 52 3 | 56 9 | 53 4 | 69 5 | 126 7 | 112 6 | | | 39 21 | 49 10 | | 63 5 | | | (5) | | (4) | 36 | 127 20 | | 139 27 | (12) (2) |
| anada Other provinces | 4,205 | 305 | 297 | 335 | 304 | 344 | 343 | 307 | 221 | 224 | 266 | 291 202 | 300 | | 63 | (12) | 79 | (11) | 93 | (13) | 108 | 001 | (+7) | 116 | (22) |
| Ontario | 7 | | | | | | | | | | | | | | 272 | (23) | 229 | (5) | 227 | 8 | 200 | 207 | (II) | 278 | (10) |
| Year | 1930-1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1963 | 1964 | Total | Specialists 1965 | Total | Specialists 1966 | Total | Specialists | 196/ Total | Suggistiets | 1968 | Total | Specialists |

SOURCES: For 1930–1963, College of Physicians and Surgeons of Ontario, Brief to the Committee on the Healing Arts, Part I, Appendix, pp. 9–10, 21. For 1964-1968, College of Physicians and Surgeons of Ontario, Report, January 1969, p. 20. Also of interest is the slowly increasing number of female graduates, from twenty-nine in 1962-1963 to forty-three in 1967-1968; this represents an increase of more than 30 per cent. Accordingly, the percentage of female graduates has grown over the period from 9.6 per cent to 12.5 per cent. It would thus appear that educational institutions are slowly removing the barriers against the training of female physicians.

Further information on the response of the health sector to increases in population and the demand for physician services is presented in Table 6.8. In this table we present information on the origin of newly registered physicians. Of major significance is the sharply increasing reliance that has been placed on physicians trained outside Ontario. New registrants trained in provinces other than Ontario have increased from sixty-three in 1964 to 116 in 1968, an increase of almost 100 per cent. The increase of new registrants with medical degrees from either the United Kingdom or Ireland has risen even more sharply over this fiveyear period, from sixty-three to 139. New registrants from other countries show vet a greater proportionate increase. Out of 435 new registrants in 1964 some 272, or 63 per cent, were graduates of Ontario medical schools; only four years later in 1968, the corresponding number was 278, or 42 per cent, of an increased total of 666 new registrants. Without these physicians trained in medical schools outside Ontario, the physician:population ratio in Ontario would indeed be much lower than it is. The education and training of physicians in Ontario has simply not been sufficient to keep pace with changes in population and the demand for physicians' services.

We might also note that there does exist a reasonably close relationship between the number of graduates from Ontario medical schools in a given year (Table 6.7) and the number of new registrants following a year of internship. With this one-year lag, the ups and downs in the number of graduates is repeated in the number of new registrants from these Ontario medical schools.

TABLE 6.9

Internes and Residents, Ontario, 1961-1968, by Region where Medical Degree

Was Obtained

| Year | Canadian universities | U.K., Australia, N.Z., S.A., and U.S.A. | Other countries | Total internes |
|------|-----------------------|---|-----------------|----------------|
| 1961 | 660 | 57 | 294 | 1,053 |
| 1962 | 711 | 59 | 248 | 1,048 |
| 1963 | 734 | 63 | 276 | 1,099 |
| 1964 | 831 | 105 | 292 | 1,237 |
| 1965 | 878 | 100 | 309 | 1,306 |
| 1966 | 783 | 131 | 373 | 1,304 |
| 1967 | 854 | 177 | 363 | 1,394 |
| 1968 | 873 | 209 | 443 | 1,525 |

Source: College of Physicians and Surgeons of Ontario, Report, January, 1969.

Information on the number of internes and residents in Ontario is shown in Table 6.9. In each year they do, in fact, provide a large volume of physicians' services in hospitals. They have grown in number by almost 50 per cent from 1961 to 1968. We note again the very large reliance being placed on physicians educated in countries other than Canada.

The increase in the number of physicians certified as specialists has been rapid. Data presented in Table 6.10 clearly illustrate this trend from 1961 to 1966; the number of specialists in Ontario has increased by nearly 25 per cent from 3,092 to 4,222. Interestingly, the following eight specialties account for roughly 75 per cent of all specialists: anaesthesia, general surgery, internal medicine, obstetrics and gynaecology, ophthalmology, paediatrics, psychiatry, and diagnostic radiology. Of these, the most rapidly increasing are psychiatry and

TABLE 6.10

Certificated Specialists of the Royal College of Physicians and Surgeons, by Specialty and Number of Specialists, and Population per Specialist Ratio, Ontario, 1961 and 1966

| | Septem | ber 30, 1961 | April 30, 1966 Population per | | | |
|-----------------------------|--------|---------------------------|-------------------------------|------------|--|--|
| | Number | Population per specialist | Number | specialist | | |
| Anaesthesia | 247 | 25,000 | 370 | 18,400 | | |
| Bacteriology | 50 | 123,000 | 54 | 126,000 | | |
| Cardiovascular and thoracic | | | | | | |
| surgery | 13 | 475,000 | 22 | 310,000 | | |
| Dermatology | 53 | 116,000 | 69 | 99,000 | | |
| General surgery | 631 | 9,800 | 756 | 9,000 | | |
| Internal medicine | 472 | 13,100 | 603 | 11,300 | | |
| Neurology | 23 | 268,000 | 35 | 194,000 | | |
| Neurosurgery | 18 | 343,200 | 28 | 244,000 | | |
| Obstetrics and | | | | | | |
| gynaecology | 292 | 21,200 | 377 | 18,100 | | |
| Ophthalmology | 154 | 40,100 | 210 | 32,500 | | |
| Orthopaedic | | | | | | |
| surgery | 86 | 71,800 | 124 | 55,100 | | |
| Otolaryngology | 141 | 43,800 | 174 | 39,000 | | |
| Paediatrics | 219 | 28,200 | 281 | 24,300 | | |
| Pathology | 99 | 62,400 | 175 | 39,000 | | |
| Physical medicine | 13 | 476,000 | 17 | 402,000 | | |
| Plastic surgery | 23 | 268,600 | 39 | 175,000 | | |
| Psychiatry | 229 | 26,900 | 389 | 17,500 | | |
| Diagnostic | | | | | | |
| radiology | 175 | 35,300 | 285 | 24,000 | | |
| Therapeutic | | , | | | | |
| radiology | 78 | 79,200 | 96 | 71,200 | | |
| Urology | 76 | 81,300 | 118 | 57,900 | | |
| Total | 3,092 | | 4,222 | | | |

Source: Royal College of Physicians and Surgeons of Canada, reply to Questionnaire "A", Committee on the Healing Arts.

diagnostic radiology, with anaesthesia and ophthalmology close behind. That there has been a significant change in the overall degree of specialization among physicians and thus in the pattern of delivering health care is apparent. This increasing specialization probably results from three factors: the increasing demand by consumers for specialized treatment; the advances made in medical technology; and the research opportunity provided by government for the development of specialization.

Though the proportion of physicians certified as specialists has increased, it does not necessarily follow that the volume of general practitioner services has fallen. With few specialists, general practitioners may well have spent a great deal of time attempting to provide specialty care that they did not do, and were not trained to do, efficiently. If this was so, then the coming of specialists may well have released large amounts of time that are now available for the rendering of general medical services.

Information on the type of activity on which physicians spend their time completes our inventory of physicians. In Table 6.11 we present information on the proportion of time spent providing medical care and that spent in administration, research, teaching and other activities. Though they spend less time providing

TABLE 6.11

Percentage of Medical Time Devoted to Patient Care, Administration, Teaching,
Research and Other Activities, Ontario, 1968

| Type of activity | General practitioners | Specialists | All doctors |
|----------------------|-----------------------|-------------|-------------|
| Fee-for-service care | 75.1 | 60.4 | 66.6 |
| Salaried care | 13.9 | 14.6 | 14.3 |
| | 89.0 | 75.0 | 80.9 |
| Administration | 4.9 | 8.4 | 6.9 |
| Teaching | 1.4 | 8.0 | 5.3 |
| Research | 1.9 | 4.4 | 3.4 |
| Other activities | 2.7 | 4.1 | 3.5 |
| | 10.9 | 24.9 | 19.1 |
| Total | 100.0 | 100.0 | 100.0 |

Source: Survey of the Medical Profession in Ontario, Tabular Summary, Table IX (Research and Planning Branch, Ontario Department of Health) September 1968 (mimeo).

direct medical care than general practitioners, specialists still devote 75 per cent of their time in this activity. Moreover, the amount of time spent by the general practitioner doing his own office book work and records may well be underestimated in Table 6.11, in contrast to that of the specialist. The specialist by and large works in an environment in which these kinds of administrative duties are handled by someone else — such as, for example, the hospital accounting department. In general, however, it appears that on average, physicians spend 80 per cent of their time delivering medical care. This is thus a major qualification that must be added to the use of the raw physician:population data of Table 6.6 for measuring the availability of physicians' services.

Nursing Personnel

Though the dollar value of the services provided by physicians may be high enough to rank them as the principal group of health care manpower, the nursing labour force is by far the principal group when judged by sheer numbers of workers. We have noted already that nursing personnel of all kinds account for over 70 per cent of skilled or semi-skilled health care manpower in Ontario. Of this group, registered nurses and registered nursing assistants are the largest subgroups, followed by student nurses, orderlies, trainee nursing assistants, and various smaller subgroups. We now consider in some detail the characteristics of the two major subgroups.

The growth in the number of registered nurses in Ontario over the period 1930 to 1968 is seen in data presented in Table 6.12. We note that there has

TABLE 6.12 Number of Nurses on the Register, Ontario, 1930-1968

| Year | Number registered |
|------|-------------------|
| 1930 | 7,965 |
| 1940 | 13,203 |
| 1950 | 18,300 |
| 1960 | 34,819 |
| 1962 | 41,036 |
| 1963 | 43,991 |
| 1964 | 46,737 |
| 1965 | 48,922 |
| 1966 | 50,786 |
| 1967 | 54,513 |
| 1968 | 59,115 |

Sources: For the years 1930-1960, College of Nurses of Ontario, reply to Questionnaire "A",

Committee on the Healing Arts.

For the years 1962-1967, Canadian Nurses' Association, Countdown 1968: Canadian Nursing Statistics, p. 61.

For the year 1968, College of Nurses of Ontario.

TABLE 6.13 Number of Full-time and Part-time Registered Nurses, Ontario, by Place of Residence and Employment Status, 1966-1967

| Nurses registered in Ontario | | 1966 50,721 | | 1967 54,492 |
|--|------------------|-----------------|-------------------|-----------------|
| Nurses registered but not resident in Ontario Nurses employed, resident in Ontario | | 4,043 | | 4, 488 |
| Full time Part time | 22,836) 9,928 | 32,764 | 23,576) 10,607 | 34,183 |
| Nurses not employed Employment status not known | | 12,043 1,871 | | 12,718 3,103 |

Source: Canadian Nurses' Association, Countdown 1967: Canadian Nursing Statistics and Countdown 1968.

been a fairly steady increase in the number of registered nurses. As an indication of the availability of registered nurses in Ontario, however, these data require a number of qualifications. In the first place, there is a substantial number of nurses registered in Ontario but working in some other province or in another country; and of course there are some nurses registered in other provinces or countries but not in Ontario who are, however, providing nursing services in Ontario. An indication of the size of the first group is given by the data presented in Table 6.13. We note that nurses registered, but not resident, in Ontario accounted for approximately 8 per cent of registered nurses in both 1966 and 1967.

A second qualification involves the basic question of whether they are currently employed. From the data in Table 6.13 we note that just under 24 per cent of registered nurses in both 1966 and 1967 reported that they were not employed. Moreover, the employment status of an additional 5 per cent or so was unknown.

A third qualification that must be made before data on registered nurses are used to indicate the supply of their services in Ontario involves consideration of whether they work full time or part time. Again, data presented in Table 6.13 are instructive. We note that in both 1966 and 1967 some 30 per cent of employed registered nurses were employed on a part-time basis.

The numbers of newly registered nurses in the province are determined by the output of nursing schools in Ontario and by the immigration of nurses from elsewhere. The upper limit on additions from the first source is indicated by the number of graduates from both diploma and B.Sc. programs in Ontario. These

TABLE 6.14
Number of Nursing Students and Graduates in Ontario, 1960-1968

| | Diploma | programs |
|------|------------|-----------|
| Year | Enrolment | Graduates |
| 1960 | 6,675 | 1,881 |
| 1961 | 7,190 | 1,910 |
| 1962 | 7,591 | 2,096 |
| 1963 | 7,724 | 2,174 |
| 1964 | 7,929 | 2,353 |
| 1965 | 8,138 | 2,477 |
| 1966 | 8,439 | 2,410 |
| 1967 | 8,599 | 2,477 |
| 1968 | 9,294 | 2,748 |
| | B.Sc. pr | ograms |
| | Admissions | Graduates |
| 1965 | 190 | 84 |
| 1966 | 212 | 92 |
| 1967 | 212 | 110 |

Source: Diploma programs: Ontario Hospital Services Commission, Annual Reports (Statistical Supplements), 1960-1968.

B.Sc. programs: For 1965, Canadian Nurses' Association Research Unit, Statistical Data on Schools of Nursing in Canada, 1966.

For 1966-1967, Canadian Nurses' Association, Countdown 1967 and Countdown 1968.

data are shown in Table 6.14. The most striking fact discernible from these data is the overwhelming predominance of the graduates from the diploma programs; those from degree programs account for only 4 per cent of all graduates. We might also draw attention to the steady increase in graduates from diploma courses over the first five years of the last decade, followed by three years of near constant output, and finally the significant increase in the number of graduates in 1968 over the previous year.

We should also again mention the role played by student nurses in the provision of nursing services. Although the amount of service required of student nurses during their training program is declining, it is substantial and amounts to a significant part of the nursing services provided in some hospitals. Thus the enrolment in nursing programs represents both potential increases in the supply of registered nurses and also actual supplies of nursing services at present. Indeed the labour force of student nurses in diploma programs stood at 8,599 persons in 1967; this would represent an addition of 25 per cent to the number of nurses registered and employed in Ontario. Thus even if these student nurses have not acquired abilities equal to those of the registered nurses, they must still be recognized as a significant body of health care manpower.

The second prime source of additions to the supply of registered nurses is immigration. In Table 6.15 we present data on the number of nurses registered in Ontario and Canada as a whole but trained elsewhere. As in the case of physi-

TABLE 6.15
Number of Foreign Nursing Graduates Newly Registered in Canada and Ontario,
1964-1967

| Year | Canada | Ontario |
|----------------------|--------|---------|
| 1964 | 1,417 | 506 |
| 1965 | 2,076 | 731 |
| 1965 1966 1967 | 2,855 | 1,151 |
| 1967 | 3,328 | 1,5281 |

¹ Of whom 531 came from England and Wales and 530 from the Philippines. Source: Canadian Nurses' Association, Research Unit.

cians, we note the heavy reliance that is placed on foreign-trained nurses. Of the 3,771 increase in the number of registered nurses from 1966 to 1967, roughly one-third were nurses trained in countries other than Canada. Moreover, the number of foreign-trained nurses registered has been increasing at an extremely rapid rate; over the four-year period from 1964 to 1967, there has been a three-fold increase.

Before proceeding to look at the kinds of registered nurses and services that are available in Ontario, we might look briefly at the number of registered nurses who are primarily engaged in the training and education of nurses rather than in the provision of direct nursing services. In Table 6.16 we present data on the

Number of Full-time Faculty Nurses in University and Diploma Programs of Nursing by Highest Academic Degree, 1965-1968 **TABLE 6.16**

| Category | | Hig | hest academic deg | Highest academic degree of faculty member | lber | |
|---|------|-------|-----------------------|---|-------------------|-------------------|
| | Year | Total | R.N. and no degree | R.N. and baccalaureate | R.N. and master's | R.N. and doctoral |
| Nurse faculty members in university | 1965 | 50 | - | 17 | OC C | |
| Nurse faculty members in diploma programs leading to R.N. | 1965 | 859 | 545 | 281 | 33 | ۱ ۱ |
| Nurse faculty members in university programs of nursing | 1966 | 49 | · - | 20 | 28 2 | |
| Nurse faculty members in diploma programs leading to R.N. | 1966 | 848 | 529 | | 35 | |
| Nurse faculty members in university programs of nursing | 1967 | 78 | - | 2 2 | } = | c |
| Nurse faculty members in diploma programs leading to R.N. | 1967 | 6/6 | 475 | 455 | 7 4 | 4 |
| Nurse faculty members in university programs of nursing | 1968 | 92 | } | 39 | .c. 47 | 9 |
| Nurse faculty members in diploma programs leading to R.N. | 1968 | 1,058 | 421 | 602 | 35 | |

Sources: For 1965, Canadian Nurses' Association, Research Unit, Statistical Data on Schools of Nursing in Canada, 1965. For 1966, 1967 and 1968, Canadian Nurses' Association, Countdown 1967, Countdown 1968 and Countdown 1969.

number of full-time faculty members in nursing education programs in 1965 to 1968. The trend towards the use of registered nurses with a B.Sc. degree in the diploma programs is noteworthy; especially so is the sharp increase from 284 in 1966 to 602 in 1968. Such personnel thus represented almost 60 per cent of the full-time faculty on diploma programs in 1968, as compared to 33 per cent in 1965.

Information on the field of employment of nurses registered in Ontario in 1967 is given in Table 6.17. By far the largest number of nurses are employed in the hospital or similar institution; these accounted for approximately 80 per cent of all registered nurses in 1967. The second largest field of employment was that of public health, which accounted for 7.2 per cent of fully employed nurses. Interestingly, private practice, though small, still accounts for the second largest percentage of registered nurses employed on a part-time basis, although again the hospital is by far the principal employer of part-time nurses.

Given that the hospital is the prime setting in which nursing services are provided, we have presented in Table 6.18 data describing employment of various types of nursing personnel by type of hospital in 1966 and for public general hospitals only in 1968. Again we draw attention to the many different types of nursing personnel. We note that graduate nurses are the largest single group of nursing personnel in the hospital. They represent about 30 per cent of all full-time nursing personnel. Student nurses then add further to the supply of nursing services and account for about 16 per cent. The other large group of nursing personnel in hospitals is that of nursing assistants and nursing assistant trainees. Together they account for a further 18 per cent of full-time nursing personnel in hospitals. It is to the registered nursing assistants that we now turn.

TABLE 6.17

Number of Professional Nurses, Registered and Employed in Ontario, by Field of Employment and Employment Status. 1967

| | | | Employm | | |
|-------------------------------|--------|--------|-----------|--------|----------|
| Field of employment | Total | | n nursing | | |
| | | Number | Per cent | Number | Per cent |
| Total | 33,877 | 23,304 | 100.0 | 10,573 | 100.0 |
| Hospital or other institution | 27,189 | 18,420 | 79.0 | 8,769 | 82.9 |
| School of nursing | 1,275 | 1,177 | 5.1 | 98 | .9 |
| Private practice | 1,298 | 564 | 2.4 | 734 | 7.0 |
| Public health (other than | | | | | |
| school health) | 1,968 | 1,670 | 7.2 | 298 | 2.8 |
| School health | 256 | 143 | .6 | 113 | 1.1 |
| Occupational health | 760 | 631 | 2.7 | 129 | 1.2 |
| Office (physician or dentist) | 947 | 576 | 2.5 | 371 | 3.5 |
| Other specified field | 95 | 82 | .3 | 13 | .1 |
| Field not reported | 89 | 41 | .2 | 48 | .5 |

Source: Canadian Nurses' Association, Research Unit, 1968.

Nursing Personnel in Ontario Hospitals, by Type of Hospital and Position Held, 1966-1968 TABLE 6.18

| | 1:: | 000000 | | | | | | | | | | | | | | |
|--|--------------|-----------------|---------------|--------------|-------|-----------|---------------|-----------------------|--|----------------------------------|-----------|-------|-------------------------------|-------------|--------|--------|
| Type of hospital | supe | and supervisors | Gra | Graduate | Stu | Student | Nurassist | Nursing assistants | Nursing assistant trainees | Nursing assistant trainees | Orderlies | rlioc | Other nursing ¹ | her ing1 | | |
| | 1966 | 1968 | 1966 | 1968 | 1966 | 1966 1968 | 1966 1968 | 1068 | 1066 1060 | 1060 | 1000 | 40.00 | personne | nnel | Total | tal |
| c general and allied special | | | | | | 0000 | 1700 | 1200 | 1200 | 1908 | 1966 | 1968 | 1966 | 1968 | 1966 | 1968 |
| Full time Part time Private general and allied special | 1,685 | 1,704 | 16,344 5,355 | 19,339 5,920 | 8,168 | 7,694 | 6,383 7 | 7,127 | 638 | 702 | 2,599 | 2,623 | 8,346 | 10,049 | 44,163 | 49,238 |
| Full time Part time Federal general and allied special | 58 | 11 | 439 | 11 | 11 | 11 | 165 | 11 | 11 | 11 | 19 | 11 | 324 | | 1,005 | 3 1 1 |
| Full time Part time al institutions ² | 34 | 11 | 448 | | 11 | 11 | 175 | 11 | | 11 | 382 | 11 | 119 | | 1,158 | |
| Full time Part time Tuberculosis institutions | 38 | 11 | 1,248 n.a. | 11 | 507 | 1.1 | 2,094 n.a. | 1.1 | 642 | 1.1 | 11 | 11 | 4,125³ n.a. | 1.1 | 8,654 | 11 |
| Full time Part time | n.a. n.a. | 11 | 135 | 11 | 10 | 11 | 37 | 11 | 2 | 11 | 46 | 11 | 112 26 | 1 | 345 | 1 1 |
| Full time ⁴ Part time | 1,815 | 11 | 18,614 4,393 | 11 | 8,685 | | 8,854 | 11 | 1,285 | 11 | 3,046 | - | 1,520 | 11 | 55,325 | 1 1 |
| | | | | | | | | | The second secon | | - | | | | 0000 | |

Includes ward clerks, ward aides, secretarial staff, garde-bébés and others. See sources.

Excludes psychiatric units in general hospitals but includes hospitals for mental defectives, psychiatric hospitals and others,

Includes 149 psychiatric nurses and thirty-four student psychiatric nurses.

Private and federal hospitals' staff considered as full time.

⁵ Horizontal total is less than 8,655 because 356 part-time employees of mental hospitals were unclassified.

Sources: DBS, Hospital Statistics, 1966, Vol. III, Queen's Printer, Ottawa, 1968, Tables 10, 26 and 30. DBS, Tuberculosis Statistics, 1966, Vol. II, Queen's Printer, Ottawa, 1968, Tables 8 and 9. DBS, Mental Health Statistics, 1966, Vol. III, Queen's Printer, Ottawa, Tables 14, 16, 18.

Ontario Hospital Services Commission, Annual Report (Statistical Supplement), 1968, Table 7.

Following registered nurses, registered nursing assistants are the second largest group of nursing personnel. Moreover, their numbers have grown extremely rapidly; only in the most recent years has this growth rate shown signs of tapering off, as may be seen from an examination of the data presented in Table 6.19. We note that the annual rate of growth in numbers registered was about 43 per cent from 1960 to 1961, and that by 1967-1968 it had fallen to 6.5 per cent.

TABLE 6.19 Number of Nursing Assistants, Registered in Ontario, 1960-1968

| Year | Number |
|------|--------|
| 1960 | 3,532 |
| 1961 | 5,018 |
| 1962 | 6,475 |
| 1963 | 8,183 |
| 1964 | 9,541 |
| 1965 | 10,959 |
| 1966 | 12,223 |
| 1967 | 14,011 |
| 1968 | 14,907 |

Sources: College of Nurses of Ontario.

Additions to the supply of nursing assistants come primarily from the training programs in Ontario. These are of three types as shown by the data in Table 6.20 — namely, the hospital-based program, the vocational school which is usually a high school-based program, and programs operated by the Department of Health. Clearly the hospital-based and Department of Health programs have been the significant ones; when taken together they account for well over 90 per cent of all graduates. Noticeably, however, the number of graduates from these two programs has not increased very much at all in the period from 1963 to 1966. In sharp contrast, graduates from vocational schools increased from thirty

TABLE 6.20 Numbers Admitted and Numbers Graduated in Provincially Approved Programs for Nursing Assistants, Ontario, 1963-1967

| | Admissions | Total | Grad Hospital school | uations Vocational school (high school based) | Department of Health |
|------|------------|-------|----------------------|---|----------------------------|
| 1963 | n.a. | 1,134 | 633 | 30 | 471 |
| 1964 | 1,502 | 1,206 | 613 | 36 | 557 |
| 1965 | 1,505 | 1,146 | 669 | 65 | 412 |
| 1966 | 1,584 | 1,292 | 654 | 98 | 540 |
| 1967 | 1,760 | 1,388 | n.a. | n.a. | n.a. |

Sources: Admissions from Canadian Nurses' Association, Countdown 1968.

Graduations from V.V. Murray, Nursing in Ontario, Committee on the Healing Arts,

Queen's Printer, Toronto, 1970, p. 168.

to ninety-eight over this period, which represented a large proportionate increase. We might also draw attention to the near constancy of the number of admissions to provincially approved programs from 1964 to 1966, and then the significant jump of nearly 200 students from 1966 to 1967.

From the data presented in Table 6.21, we see that in 1967 registered nurses without a degree again account for the major part of the faculty of the nursing assistant programs. Registered nurses with a B.Sc. degree account for only 23 per cent of all faculty members in provincially approved training programs.

TABLE 6.21

Full-time Nurse Faculty Members in Provincially Approved Programs for Nursing
Assistants in Ontario, by Highest Academic Degree, November 1967

| | Highest academic de | gree of faculty members in nurs | ing assistant programs |
|-------|---------------------|---------------------------------|--------------------------|
| Total | R.N. and no degree | R.N. and baccalaureate degree | R.N. and master's degree |
| 155 | 118 | 36 | 1 |

Source: Canadian Nurses' Association, Countdown 1968.

An indication of the actual supply of nursing services provided by registered nursing assistants is shown by the data contained in Table 6.22. We first note that of the 14,011 registered nursing assistants in Ontario in 1967 (as shown in Table 6.19), only 10,890 or 77 per cent were employed. Second, of these, only 8,348 or about 84 per cent of the employed were on a full-time basis.

The data contained in Table 6.22 describe also the field of employment of registered nursing assistants and thus the kind of nursing services provided by them. Without question, the hospital is the prime location of activity; it accounts for the employment of 92 per cent of fully employed nursing assistants. When the employment of these personnel in nursing homes is added to that in hospitals, we have accounted for almost 95 per cent of the employment of all nursing assistants.

The final characteristic of the training and use of nursing personnel in general to which we would like to draw attention is the provision of specialized nursing services for patients with psychiatric disorders. In Table 6.23, we present information on the training facilities for nursing personnel in mental hospitals and the psychiatric units of other hospitals. Programs are available in some of these institutions for undergraduate and postgraduate training of psychiatric nurses. In addition, there are training programs for regular nurses, nursing assistants, orderlies and other health care personnel.

Dentists and Other Dental Personnel

As judged by the dollar value of the services provided, dentists must be considered the principal manpower group providing dental services. Given this fact, it is

Number of Registered Nursing Assistants Employed in Nursing, by Field of Employment and Employment Status, Ontario, 1967 TABLE 6.22

| , | , | | | Employment status | t status | 100 | |
|---------------------|--------------|---------------------|--------------------------------------|------------------------|-----------------------|---|------------------------------|
| Field of employment | Total number | Full time Number | Full time in nursing Number Per cent | Part time ii Number | n nursing Per cent | Part time in nursing Employment sta Number Per cent Number | tus not reported Per cent |
| | 10,890 | 8,348 | 100.0 | 1,802 | 100.0 | 740 | 100.0 |
| | 9,208 | 7,668 | 91.9 | 1,522 | 84.5 | 18 | 2.4 |
| lome | 259 | 198 | 2.4 | 61 | 3.4 | 1 | - |
| ursing | 159 | 70 | ∞. | 87 | 4.8 | 2 | ωį |
| alth | 51 | 36 | 4. | 14 | ∞. | | |
| onal health | 36 | 34 | 4. | | - | | -: |
| rsing | 186 | 139 | 1.7 | 45 | 2.5 | 7 | ų. |
| scified field | 209 | 163 | 1.9 | 41 | 2.3 | 5 | 7. |
| Field not reported | 782 | 40 | 'n | 31 | 1.7 | 711 | 96.1 |

SOURCE: Canadian Nurses' Association, Research Unit.

| 1702- | 1,700 | | | | |
|--|-------|-----------|------------------|------------|------------|
| Category | 1962 | 1963 | 1964 | 1965 | 1966 |
| MENTAL HOSPITALS | | | | | |
| 1. (a) Approved school of nursing | 3 | 3 | 3 | 3 | |
| (b) Number of graduates | 28 | 58 | 116 | 63 | |
| 2. (a) Hospital provides formal training | | | | | |
| for psychiatric nurses | 1 | 1 | 2 | 1 | 1 |
| (b) Number of graduates | 17 | 16 | 21 | 17 | 8 |
| 3. (a) Affiliation provided for | | | | | |
| undergraduate nurses | 16 | 14 | 12 | 13 | 13 |
| (b) Number of affiliates trained | | | | | |
| during year | 1,486 | 1,793 | 1,864 | 1,789 | 1,671 |
| 4. Hospital provides postgraduate | | | | | |
| course for registered nurses in | | _ | _ | - | |
| psychiatric nursing | 3 | 5 | 5 | 7 | 4 |
| 5. (a) Hospital provides a formal | | | | | |
| program for ancillary nursing | 1.0 | 20 | 20 | 22 | 0.0 |
| personnel | 18 | 20 | 20 | 22 | 23 |
| (b) Number of graduates from | | | | | |
| hospitals formal training nurse's aides | 481 | 400 | 205 | 207 | 251 |
| orderlies | 158 | 498 37 | 295 233 | 397 324 | 251 202 |
| psychiatric aides | 130 | 136 | 285 | 270 | 171 |
| other | 265 | 435 | 229 | 105 | 67 |
| other | 203 | 433 | 447 | 103 | 07 |
| MENTAL HOSPITALS | | | | | |
| PSYCHIATRIC UNITS | | | | | |
| 1. (a) Unit utilized for formal | | | | | |
| psychiatric preparation of basic | | | | | |
| professional student nurses | 13 | 13 | 14 | 15 | |
| (b) Number of basic professional | (271 | (() | 6503 | 0.57 | |
| student nurses during year | 6371 | 664 | 658 ² | 957 | |
| 2. (a) Unit utilized for formal | | | | | |
| psychiatric preparation of | | | 1 | 3 | |
| psychiatric student nurses (b) Number of psychiatric student | | | 1 | 3 | 601-10-401 |
| nurses during year | | | 59 | 1 | |
| 3. (a) Unit utilized for formal | | | 33 | 1 | |
| psychiatric training of nursing | | | | | |
| assistants | | | | | |
| (b) Number of nursing assistant | | | | | |
| trainees during year | | | Secretar | | |
| 4. Hospital provides an organized | | | | | |
| postgraduate program for | | | | | |
| registered nurses | 1 | 1 | 1 | 1 | |
| Number of nurses who | | | | | |
| completed program | 6 | 5 | | 29 | |

¹ Includes all undergraduate nurses.

² Ibid.

Source: DBS, Mental Health Statistics, Vol. III, Institutional Facilities, Services and Finances annually.

interesting to note that the dentist:population ratio has been steadily increasing in Ontario since 1931, as shown by the data in Table 6.24. These data show clearly that the number of dentists has not kept pace with the growth in population. The dentist:population ratios shown in Table 6.24, however, are subject to the same caveats made in connection with the data on physicians set out earlier. The steadily increasing ratios shown in Table 6.24 do not necessarily reflect a relative decline in the quantity of dental services available in Ontario. For example, the increased productivity of dentists as a result of the introduction of high speed drilling might have more than offset this increasing dentist:population ratio.

It is thus instructive to examine the dentist:population ratios in Table 6.25 for provinces other than Ontario and for other countries. We note that Ontario

TABLE 6.24
Number of Dentists and Population per Dentist, Ontario, 1911-1968

| Number of Dentists and | Population per Dent | ist, Ontario, 1911-1968 |
|------------------------|---------------------|-------------------------|
| · | Number of dentists | Population per dentist |
| 1911 | 1,127 | 2,242 |
| 1921 | 1,377 | 2,130 |
| 1931 | 1,852 | 1,853 |
| 1938 | 1,932 | 1,882 |
| 1941 | 1,891 | 2,003 |
| 1943 | 1,938 | 2,004 |
| 1944 | 2,026 | 1,932 |
| 1945 | 2,062 | 1,922 |
| 1946 | 2,107 | 1,898 |
| 1947 | 2,081 | 1,967 |
| 1948 | 2,032 | 2,055 |
| 1949 | 1,984 | 2,155 |
| 1950 | 1,995 | 2,194 |
| 1951 | 2,103 | 2,126 |
| 1952 | 2,154 | 2,134 |
| 1953 | 2,218 | 2,159 |
| 1954 | 2,220 | 2,226 |
| 1955 | 2,231 | 2,293 |
| 1956 | 2,270 | 2,320 |
| 1957 | 2,297 | 2,353 |
| 1958 | 2,370 | 2,378 |
| 1959 | 2,476 | 2,351 |
| 1960 | 2,477 | 2,410 |
| 1961 | 2,513 | 2,432 |
| 1962 | 2,522 | 2,473 |
| 1963 | 2,552 | 2,485 |
| 1964 | 2,599 | 2,481 |
| 1965 | 2,623 | 2,511 |
| 1966 | 2,687 | 2,505 |
| 1967 | 2,732 | 2,548 |
| 1968 | 2,810¹ | 2,473 |

¹ Male-Female ratio for number of registered dentists in 1968 is 2,735:75. Source: Canadian Dental Association, Bureau of Economic Research.

TABLE 6.25

Population per Dentist and Dentists per 10,000 Population, Provincial and International Comparisons, 1967

| Province or Country | Population per dentist | Dentists per 10,000 population |
|----------------------------|------------------------|--------------------------------|
| Newfoundland | 9,674 | 1.0 |
| Prince Edward Island | 3,618 | 2,8 |
| Nova Scotia | 3,203 | 3.1 |
| New Brunswick | 4,708 | 2.1 |
| Quebec | 3,732 | 2.7 |
| Ontario | 2,548 | 3.9 |
| Manitoba | 3,265 | 3.1 |
| Saskatchewan | 4,342 | 2.3 |
| Alberta | 2,909 | 3.4 |
| British Columbia | 2,387 | 4.2 |
| Canada | 3,064 | 3.3 |
| United States ¹ | 1,900 | 5.3 |
| Sweden ¹ | 1,500 | 6.7 |
| Australia ¹ | 2,300 | 4.3 |

^{1 1966} figures.

Sources: Canadian Dental Association, Bureau of Economic Research.

Royal College of Dental Surgeons, Brief to the Committee on the Healing Arts.

appears to have had the second largest supply of dentists relative to population of the Canadian provinces. The international comparisons shown in the same table suggest, however, that there is little cause for complacency in Ontario; there would appear to be a definite shortage of dentists in Ontario, and especially so in Canada at large as judged by international standards.

The sources of recruitment and loss in numbers of Ontario dentists are identified in Table 6.26. The net increase of 119 dentists in 1968 resulted from the addition of 131 new graduates, twenty-six dentists moving to Ontario, twenty-six deaths and retirements, six dentists migrating from the province, and six with-drawals for other reasons. There are at least three interesting conclusions to be inferred from the data presented in this table. First, the mobility of dentists appears to have been very low except possibly for new graduates coming from other provinces. Second, the data on deaths and retirements indicate the presence of an abnormal age distribution of dentists. The paucity of dental graduates in the 1930's perhaps accounts in part for the worsening dentist:population ratio in Ontario. Third, the number of new graduates from Ontario dental schools does not appear to have kept pace with changes in population and the demand for dental care. We might thus look in more detail at the output of new dentists from Ontario dental schools.

Until recently the story of dental education in Ontario was the story of the Faculty of Dentistry at the University of Toronto. With the establishment of a Faculty of Dentistry at the University of Western Ontario this is changing, although

TABLE 6.26 Changes in the Number of Dentists Registered in Ontario, 1955-1969

| | Total | regis- | trants | at Dec. 31 | 2,270 | 2,297 | 2,370 | 2,476 | 2,477 | 2,513 | 2,522 | 2,552 | 2,599 | 2,623 | 2,687 | 2,732 | 2,810 | 2,929 | . 1 | |
|-----------------------|-------|--------|-----------|---------------|-------|----------|-------|-------|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|
| | | | ease over | previous year | 392 | 27 | 73 | 106 | _ | 36 | 6 | 30 | 47 | 24 | 64 | 45 | 78 | 119 | | |
| | | | Net incre | previc | 271 | 32 | 36 | 40 | 69 | 36 | 40 | 30 | 47 | 24 | 64 | 45 | 78 | 119 | 1 | |
| | | | | Total | 09 | 59 | 29 | 51 | 79 | 80 | 46 | 96 | 96 | 116 | 93 | 130 | 77 | 38 | 1 | |
| ot renewed | | | | Other | - | 1 | | 1 | - The second | Į | 1 | 1 | 7 | 21 | 19 | 24 | 23 | 9 | 1 | |
| Licences not renewed | | Moves | from | Ontario | 6 | 10 | 10 | m | 20 | 48 | 9 | 17 | 17 | 14 | 7 | 16 | 4 | 9 | 1 | |
| | | | Retire- | ments | 20 | 14 | 24 | 6 | 29 | 12 | 24 | 37 | 39 | 37 | 41 | 54 | 21 | 19 | 1 | |
| | | | | Deaths | 31 | 35 | 33 | 39 | 30 | 20 | 16 | 42 | 33 | 4 | 26 | 36 | 29 | 7 | - | |
| | | | | Total | 87 | 91 | 103 | 91 | 110 | 116 | 98 | 126 | 143 | 140 | 157 | 175 | 155 | 157 | | |
| Register | | Moves | to | Ontario | ∞ | ∞ | 7 | 2 | 7 | 6 | ∞ | 9 | 6 | 9 | 11 | 62 | 42 | 79 | 1 | |
| Additions to Register | | | New | graduates3 | 79 | 83 | 96 | 98 | 103 | 107 | 78 | 120 | 134 | 134 | 146 | 113 | 113 | 131 | 1 | |
| Ac | Total | regis- | trants | as of Jan. 1 | 2,231 | 2,270 | 2,297 | 2,370 | 2,476 | 2,471 | 2,513 | 2,522 | 2,552 | 2,599 | 2,623 | 2,687 | 2,732 | 2,810 | 2,929 | |
| | | | | Year | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | |

1 Total of additions minus total of those not renewed.

² Subsequent totals subtracted.

³ It appears possible that some recently graduated dentists coming from other provinces may have been included with "new graduates", at least until 1966.

SOURCE: Canadian Dental Association, Bureau of Economic Research.

the faculty at Western will graduate its first class in 1970 and will not graduate a full-sized class until 1974 when fifty-two graduates are anticipated. A major increase in the number of graduates occurred in 1963, when the University of Toronto's graduating class size increased by over 50 per cent. From 1963-1964 to 1967-1968 the number of full-time undergraduates enrolled increased from 480 to 498, while the number of graduates per year did not increase to any appreciable extent in the same period.

In Table 6.27 we present data which describe the number of dentists graduated from the University of Toronto. We see that the numbers slowly but steadily increase until 1963, when there was the substantial increase that we have already noted. Thereafter the number of graduates remain almost constant. It will also be noticed that in 1950-1951 the numbers of graduates were particularly large. This was the result of a policy on the part of the Faculty of Dentistry of admitting practically all of the eligible ex-servicemen who applied to the faculty.

TABLE 6.27 Numbers Graduated from the University of Toronto School of Dentistry, 1947-1969

| No. gra | duated | No. gra | duated |
|---------|--------|---------|--------|
| 1947 | 75 | 1959 | 74 |
| 1948 | 24 | 1960 | 94 |
| 1949 | 75 | 1961 | 72 |
| 1950 | 168 | 1962 | 85 |
| 1951 | 152 | 1963 | 124 |
| 1952 | 85 | 1964 | 120 |
| 1953 | 75 | 1965 | 123 |
| 1954 | 69 | 1966 | 121 |
| 1955 | 78 | 1967 | 122 |
| 1956 | 76 | 1968 | 127 |
| 1957 | 78 | 1969 | 129 |
| 1958 | 75 | | |

Sources: For 1947-1962, B.A. McFarlane, Dental Manpower in Canada, Royal Commission on Health Services, Queen's Printer, Ottawa, 1965, p.15.

For 1963-1967, University of Toronto, Faculty of Dentistry, reply to Questionnaire "A",

Committee on the Healing Arts.

For 1968-1969, the Faculty Registrar's office.

In general, there would seem to be little doubt that education institutions concerned with the training and education of dentists have not been sufficiently responsive to changes in population and the demand for dental services.

Compared to physicians, relatively few dentists engage in, and limit their activities to, specialized practice. The data contained in Table 6.28 show that only 178 of the 2,810 dentists registered in 1968 limited their practice to specialties. On the other hand, there has been fairly steady growth in the proportion of such specialists. In 1955 only 4 per cent of dentists were specialists. By 1968 this figure had grown to 6.3 per cent. Of the four specialties, orthodontics is the

prominent one; it accounts for almost 50 per cent of all specialists. The smallest one, paedodontics, has grown proportionately the fastest, from five dentists in 1955 to sixteen in 1968. The growth of orthodontics and periodontics also has been fairly rapid. Accordingly, the move towards increased specialization among physicians is, with a substantial lag, also in evidence among dentists.

TABLE 6.28
Ontario Dentists Limiting their Activities to Specialties, by Specialty, 1955-1968

| | Total | Oral surgery | Orthodontics | Paedodontics | Periodontics |
|------|-------|--------------|--------------|--------------|--------------|
| 1955 | 89 | 28 | 41 | 5 | 15 |
| 1956 | 92 | 30 | 42 | 5 | 15 |
| 1957 | 93 | 31 | 44 | 5 | . 13 |
| 1958 | 103 | 34 | 50 | 6 | 13 |
| 1959 | 104 | 33 | 51 | 6 | 14 |
| 1960 | 108 | 33 | 56 | 6 | 13 |
| 1961 | 116 | 35 | 61 | 6 | 14 |
| 1962 | 123 | 34 | 67 | 6 | 16 |
| 1963 | 125 | 35 | 71 | | 19 |
| 1964 | 129 | 35 | 74 | | 20 |
| 1965 | 130 | 35 | 74 | | 21 |
| 1966 | 153 | 37 | 79 | 9 | 28 |
| 1967 | 165 | 36 | 85 | 11 | 33 |
| 1968 | 178 | 40 | 87 | 16 | 35 |

Source: Canadian Dental Association, Bureau of Economic Research.

Information on the way in which dentists provide dental care can be gleaned from Table 6.29 wherein we present information on the kinds of other dental personnel employed by dentists. Dentists employ several different kinds of dental personnel: secretary-receptionists, chairside assistants, dental hygienists, and dental laboratory technicians. Surveys of dental practices in Ontario were made in 1963 and 1967 to determine the numbers of such auxiliary personnel employed. Some of the results of these surveys are shown in this table. For example, it may be estimated from these ratios that the 2,810 Ontario dentists would employ 2,822 assistants, 287 of them part time, and 753 secretaries, 112 of whom would be part time. Of significance is the marked increase in the use of all four kinds of other dental personnel in the period from 1963 to 1967. Of even greater significance, however, is the limited use being made of these personnel. This is especially so in the case of dental hygienists and technicians.

Dental Hygienists and Dental Technicians

More detailed statistics are available for the formally trained and registered dental hygienists and registered dental laboratory technicians than for the secretary-receptionists and chairside assistants, because the latter are usually trained on the job and are not licensed or registered.

The number of dental hygienists in Ontario is set out in Table 6.30. Their numbers appear to have increased directly as a result of the output of the Uni-

TABLE 6.29 Percentage of Dentists Employing Full-time and Part-time Auxiliary Personnel, by Type of Personnel, Ontario, 1963, 1967

| | Hygie | enists | Techr | nicians | Assi | stants | Secre | taries |
|------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Year | Full time | Part time | Full time | Part time | Full time | Part time | Full time | Part time |
| 1963 | 1.7 | 4.1 | 2.4 | 2.9 | 82 | 20 | 13.1 | 10.5 |
| 1967 | 5.35 | 7.53 | 3.9 | 2.1 | 85.8 | 19.43 | 21.7 | 7.5 |

Source: R. K. House, Dentistry in Ontario, Committee on the Healing Arts, Queen's Printer, Toronto, 1970.

versity of Toronto dental hygienists course; with an initial lag of a year or two, the ratio of hygienists to dentists has steadily improved. It would still appear to be capable of further improvement. Noticeable is the relative constancy in the output of dental hygienists, though this number will increase when the University of Western Ontario program begins to graduate dental hygienists.

The other group of dental care personnel, dental laboratory technicians, are now usually employed in commercial laboratories engaged in manufacturing dental prosthetic devices, rather than by individual dentists themselves. The numbers of these establishments are shown in Table 6.31 for the years 1962 to 1966. Only the owners of these establishments are required to be registered laboratory technicians. Their employees may or may not possess this qualification. Estimates available from other sources indicate that there are 310 registered dental technicians and 550 non-registered technicians practising in Ontario.14

TABLE 6.30 Number of Dental Hygienists and Dental Hygienist: Dentist Ratio in Ontario, 1960-1969

| Year | Number of graduates (University of Toronto) | Number of registered dental hygienists | Hygienist: dentist ratio |
|------|---|--|--------------------------|
| 1960 | | 42 | |
| 1961 | | 48 | |
| 1962 | | 58 | Millerald |
| 1963 | 38 | 57 | |
| 1964 | 45 | 98 | 1:27 |
| 1965 | 47 | 116 | 1:23 |
| 1966 | 44 | 189 | 1:14 |
| 1967 | 46 | 238 | 1:11 |
| 1968 | 41 | 297 | 1:10 |
| 1969 | 37 | 317 | n.a. |

Source: Canadian Dental Association, Bureau of Economic Research. University of Toronto, Faculty of Dentistry, reply to Questionnaire "C", Committee on the Healing Arts. The 1967, 1968 and 1969 figures were obtained directly from the Faculty of Dentistry.

¹⁴Dental Technicians in Ontario, an unpublished study for the Committee on the Healing Arts, 1969.

TABLE 6.31 Number of Dental Laboratory Establishments and Number of Employees and Owners, Ontario, 1962-1966

| | 1962 | 1963 | 1964 | 1965 | 1966 |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|
| Number of establishments Production and | 161 | 156 | 157 | 161 | 162 |
| related workers Working partners or owners All employees | 535 167 608 | 591 159 677 | 598 162 675 | 656 153 725 | 714 157 808 |

Source: DBS, "Scientific and Professional Equipment Manufacturers", Annual Census of Manufactures, Queen's Printer, Ottawa; for the years indicated above.

Pharmacists

The number of pharmacists registered to practise in Ontario is given in Table 6.32 for the years 1955 to 1968. The pharmacist:population ratio also is provided. This ratio shows a steady decline in the number of pharmacists available relative to the population to be served. These data should be interpreted with caution for the same reasons noted earlier in connection with other health manpower groups. For example, pharmacists may now be devoting much more of their time to work as pharmacists rather than as store clerks, managers and owners. Moreover, the average time required to prepare a prescription may well have fallen drastically, as an increasing percentage of drugs come from pharmaceutical firms all ready for dispensing to the patient.

TABLE 6.32 Pharmacists Registered in the Ontario College of Pharmacy, Population of Canada, and Population per Pharmacist, 1955-1968

| Year | Registrants | Population (000's) | Population per pharmacist |
|------|-------------|--------------------|---------------------------|
| 1955 | 3,541 | 5,266 | 1,487 |
| 1956 | 3,642 | 5,405 | 1,484 |
| 1957 | 3,730 | 5,636 | 1,511 |
| 1958 | 3,772 | 5,821 | 1,543 |
| 1959 | 3,834 | 5,969 | 1,557 |
| 1960 | 3,923 | 6,111 | 1,558 |
| 1961 | 3,976 | 6,236 | 1,568 |
| 1962 | 4,027 | 6,351 | 1,577 |
| 1963 | 4,100 | 6,481 | 1,581 |
| 1964 | 4,271 | 6,631 | 1,553 |
| 1965 | 4,309 | 6,788 | 1,575 |
| 1966 | 4,347 | 6,961 | 1,601 |
| 1967 | 4,393 | 7,149 | 1,627 |
| 1968 | 4,461 | 7,306 | 1,638 |

SOURCE: For 1955-1962, T. M. Ross, Pharmacist Manpower in Canada, Royal Commission on Health Services, Queen's Printer, Ottawa, 1967, p. 8. For 1963-1968, the Ontario College of Pharmacy.

TABLE 6.33 International Comparisons of Population:Pharmacist Ratios, 1966, 1967

| Province or country | Year | No. of pharmacists | Population (000's) | Population per pharmacist |
|---------------------|-----------|--------------------|--------------------|---------------------------|
| Ontario | 1967 | 4,393 | 7,149 | 1,627 |
| Canada | 1966 | 10,585 | 20,551 | 1,942 |
| Sweden | 1966 | 2,636 | 7,780 | 2,951 |
| Finland | 1967 | 4,250 | 4,668 | 1,098 |
| Norway | 1966-1967 | 1,287 | 3,781 | 2,938 |
| U.S.A. | 1967 | 122,420 | 198,544 | 1,639 |
| France | 1967 | 26,900 | 50,138 | 1,864 |
| Netherlands | 1966 | 1,158 | 12,513 | 10,806 |
| Japan | 1966 | 70,810 | 98,544 | 1,392 |
| Switzerland | 1967 | 1,510 | 6,074 | 4,023 |
| Israel | 1967 | 1,539 | 2,651 | 1,723 |

Source: World Health Statistics Report, Vol. 22, No. 3, 1969, pp. 172-180.

As the modes of prescribing and preparing prescriptions may well vary widely among countries, the international data presented in Table 6.33 should also be interpreted with caution. It does appear, however, that, on a comparative basis, Ontario is reasonably well supplied with pharmacists.

TABLE 6.34 Pharmacy Graduates from the University of Toronto and Other Jurisdictions Added to the Register in Ontario, 1956-1968

| Year | Number of graduates, University of Toronto, Faculty of Pharmacy | Number of pharmacists from other jurisdictions | Total |
|------|---|--|-------|
| 1956 | 46 | 35 | 81 |
| 1957 | 45 | 37 | 82 |
| 1958 | 80 | 29 | 109 |
| 1959 | 69 | 29 | 98 |
| 1960 | 92 | 8 | 100 |
| 1961 | 72 | 13 | 85 |
| 1962 | 73 | 15 | 88 |
| 1963 | 1171 | 12 | 129 |
| 1964 | 76 | 22 | 98 |
| 1965 | 89 | 12 | 101 |
| 1966 | 79 | 35 | 114 |
| 1967 | 68 | 35 | 103 |
| 1968 | 86 | 742 | 160 |

¹ The regulations were changed in 1964 to make reinstatement more difficult; therefore, a number of pharmacists who had not needed a licence because they worked for industry or taught, applied for one before the regulation went into effect.

Source: Ontario College of Pharmacy.

² Until July 1968, a regulation of the Ontario College of Pharmacy limited the number of new registrants from outside jurisdictions to one per cent of the total number on the Register per year. This provision was withdrawn in 1968.

Table 6.34 traces the source of additions to the province's complement of pharmacists. The main source of new registrants has been the University of Toronto Faculty of Pharmacy. The number of pharmacists coming to Ontario. from other provinces and from abroad has also been a significant factor, despite the former policy of the Ontario College of Pharmacy to limit the number of new registrants from other jurisdictions to one per cent of the total number on the Register per year. This practice ceased in 1968; as a result, the number of registrants from other jurisdictions more than doubled from 1967 to 1968.

The Faculty of Pharmacy of the University of Toronto is the sole training facility for pharmacists in Ontario. Table 6.35 shows that between 1947-1948 and 1965-1966 enrolment has increased from 296 to 428. This growth rate, of course, has been too small to keep pace with changes in population. But growth has been particularly characterized by growth in the female part of the class. In 1947-1948, women represented fifty out of 296 students enrolled, or 17 per cent; by 1965-1966, women numbered 163 out of 428 or 38 per cent of the students. By comparison the number of male students remained constant between about 250 and 300 students.

TABLE 6.35
Enrolment and Graduates, University of Toronto, Faculty of Pharmacy, 1947 to 1968

| Year | Male | Enrolment Female | Total | Graduates |
|-----------|------|---------------------|-------|-----------|
| 1947–1948 | 246 | 50 | 296 | _ |
| 1948–1949 | 256 | 49 | 305 | |
| 1949–1950 | 278 | 44 | 322 | - |
| 1950-1951 | 320 | 44 | 364 | _ |
| 1951-1952 | 364 | 58 | 422 | 23 |
| 1952-1953 | 399 | 75 | 474 | 45 |
| 1953-1954 | 224 | 57 | 281 | 45 |
| 1954-1955 | 256 | 62 | 318 | 40 |
| 1955–1956 | 276 | 76 | 352 | 68 |
| 1956–1957 | 287 | 52 | 339 | 86 |
| 1957–1958 | 263 | 64 | 327 | 80 |
| 1958–1959 | 253 | 69 | 322 | 85 |
| 1959-1960 | 254 | 77 | 331 | 67 |
| 1960–1961 | 271 | 104 | 375 | 72 |
| 1961–1962 | 286 | 110 | 396 | 63 |
| 1962–1963 | 296 | 131 | 427 | 96 |
| 1963–1964 | 271 | 143 | 414 | 84 |
| 1964–1965 | 263 | 146 | 409 | 98 |
| 1965–1966 | 265 | 163 | 428 | 87 |
| 1966–1967 | | - | _ | 74 |
| 1967–1968 | - | | | 84 |

Sources: For statistics on enrolment, 1947-1963, T. M. Ross, *Pharmacist Manpower in Canada*, Royal Commission on Health Services, Queen's Printer, Ottawa, 1967, p. 16; 1963-1964, 1965-1966, Ontario College of Pharmacy, *Minutes*.

For statistics on graduates, University of Toronto, Faculty of Pharmacy.

In sharp contrast to the relatively slow rate of growth in enrolment, the number of graduates also shown in Table 6.35 has more than tripled, rising from twenty-three in 1952 to eighty-four in 1968.

Some information on the activities of registered pharmacists in 1968, and thus on the patterns of providing pharmaceutical products, is presented in Table 6.36. Pharmacists are classified by level of education as well as their employment status. We first note that most Ontario pharmacists have Bachelor's degrees in pharmacy, are male, and are engaged in the operation of retail pharmacies. (Only 674 of 4,461 registered pharmacists, or 15 per cent, are women.) Some 90 per cent of

TABLE 6.36

Registered Pharmacists by Level of Education and Sex, by Residence and by Employment Status within the Pharmacy, Ontario, November 30, 1968

| | No degree | B. Pharm. | B.Sc.Pharm. | Sp. Reg. | Total |
|---|---|-----------|--|---|-------|
| SECTION I OF THE REGISTER ¹ | | | | | |
| Owners | | | | | |
| Male | 55 | 568 | 80 | 32 | 735 |
| Female | www.dride | 18 | 2 | 8 | 28 |
| Total owners | | | _ | | 763 |
| Managers | | | | | |
| Male | 65 | 819 | 348 | 106 | 1,338 |
| Female | 1 | 41 | 22 | 14 | 78 |
| Total managers | - | | | — | 1,416 |
| Hospitals and clinics | | | | | |
| Male | 11 | 79 | 17 | 21 | 128 |
| Female | - | - 18 | 14 | 7 | 39 |
| Total hospitals and | | | | | |
| clinics | | | | | 167 |
| Other | | | | *************************************** | 1 |
| Total, Section I | | | | | 2,347 |
| SECTION II OF THE REGISTER ² | | | | | |
| Residents of Ontario | | | | | |
| Male | 211 | 773 | 302 | 136 | 1,422 |
| Female | 8 | 145 | 216 | 104 | 473 |
| Total Ontario residents | | - | and the same of th | | 1,895 |
| Non-residents | | | | | |
| Male | 8 | 80 | 39 | 36 | 163 |
| Female | 1 | 23 | 15 | . 17 | 56 |
| Total non-residents | | | | | 219 |
| Total, Section II | | | - | - | 2,114 |
| Total registrants | 100000000000000000000000000000000000000 | _ | | - | 4,461 |
| Grand total | | | | | |
| Male | - | | _ | | 3,787 |
| Female | | - | | - | 674 |

¹ Registrants under Section I have signing privileges for narcotics; those under Section II do not. All Section I registrants are resident in Ontario.

² Twenty registrants under Section II are medical doctors.

Source: Ontario College of Pharmacy, "Statistics on Registration for 1968" (unpublished).

active pharmacists either own or are employed in retail pharmacies. Hospitals employed a further 281 pharmacists in 1967, and industry and government, about 100.

The number of retail pharmacies and the pharmacy:population ratio is shown in Table 6.37. The number of pharmacies is seen to have been declining since 1955, causing the pharmacy:population ratio to change from 1:2,740 persons in 1955 to 1:4,423 in 1968. It should be noted, however, that the number of pharmacies is not the same as the number of retail outlets, as some pharmacies have multiple outlets. Moreover, the size of a given pharmacy may well have increased enough to offset the decline in numbers; there might be fairly large economies of scale in the dispensing of present day pharmaceutical products.

TABLE 6.37

Number of Retail Pharmacies, Population and Pharmacy:Population Ratio,
Ontario, 1955, 1965 and 1968

| Year | Pharmacies | Population | Population per pharmacy |
|------|------------|------------|-------------------------|
| 1955 | 1,922 | 5,266,000 | 2,740 |
| 1965 | 1,787 | 6,788,000 | 3,799 |
| 1968 | 1,652 | 7,306,000 | 4,423 |

Source: Ontario College of Pharmacy.

Optometrists

The number of optometrists practising in Ontario has been declining slowly for the last two decades. From the data in Table 6.38 we see that in 1951 there were 665 optometrists licensed in Ontario and that by 1968 this number had declined to 519, with the population per optometrist figure more than doubling from just under 7,000 to over 14,000. As for other groups, information on the efficiency of the methods of providing optometrical services is required before these data

TABLE 6.38

Number of Practising Optometrists and Population per Optometrist, Ontario, 1941-1968

| Year | Number of optometrists | Population per optometrist | |
|------|------------------------|----------------------------|--|
| 1941 | 646 | 5,863 | |
| 1951 | 665 | 6,913 | |
| 1961 | 533 | 11,699 | |
| 1964 | 527 | 12,583 | |
| 1965 | 521 | 13,029 | |
| 1966 | 525 | 13,259 | |
| 1967 | 522 | 13,695 | |
| 1968 | 519 | 14,077 | |

Sources: Data for 1941, 1951, and 1961 are taken from the Report of the Royal Commission on the Health Services, Vol. I, Queen's Printer, Ottawa, 1964, p. 291.

Data for 1964–1968 are based on information obtained directly from the College of Optometrists of Ontario.

TABLE 6.39
Graduates from the Ontario College of Optometry, 1952-1968

| Year | Number of graduates | Graduates who were Ontario residents | |
|-------|---------------------|--------------------------------------|--|
| 1952 | 31 | 16 | |
| 1953 | 16 | 7 | |
| 1954 | 17 | 8 | |
| 1955 | 1 | _ | |
| 1956 | 7 | 3 | |
| 1957 | 10 | 5 | |
| 1958 | 9 | 7 | |
| 1959 | | 4 | |
| 1960 | 8 5 | 4 | |
| 1961 | 6 | 3 | |
| 1962 | 9 | 4 3 5 | |
| 1963 | 14 | 6 | |
| 1964 | 16 | 11 | |
| 1965 | 22 | 12 | |
| 1966 | 20 | 12 | |
| 1967 | 19 | 7 | |
| 1968 | 23 | 6 | |
| | | 116 | |
| Total | 232 | 116 | |

¹ There were no graduates in 1955 because of the change from a three to a four-year course. In 1955 classes ceased at the University of Toronto and began at the University of Waterloo.

Source: Information obtained directly from the College of Optometrists of Ontario.

are taken as an indication of declining availability of the services of optometrists to residents of Ontario. One reason for the declining number and high average age of optometrists in Ontario is suggested by the data in Table 6.39. We see that very few new optometrists have graduated from the Ontario College of Optometry or, since 1968, the School of Optometry at the University of Waterloo. Because the latter, along with one other school (the Université de Montréal), has supplied all the optometrists trained in Canada, it is apparent why so few new registrants have been available to practise optometry in this province.

Medical Laboratory Technologists and Radiological Technicians

Although some medical laboratory technologists and radiological technicians find employment in private laboratories, most are employed in hospitals. In Table 6.40 are data on the numbers of laboratory technologists, radiology technicians, and combined radiology and laboratory technologists, employed in general hospitals in Ontario. Of these, the largest group is that of the medical laboratory technologists; they accounted for 70 per cent of the total in 1968. Nearly all the rest are radiological technicians. As was noted previously, however, even when taken together these groups account for less than 5 per cent of the total health manpower group in Ontario.

The rapid growth in the numbers of such workers is indicated by the near doubling of the number of full-time technologists between 1960 and 1968, from

TABLE 6.40 Laboratory and Radiology Technologists Employed in Public General Hospitals, Ontario, 1960-1968

| Year | Laboratory | Laboratory technologists | | Combined radiology and laboratory | | Radiology technicians | |
|------|------------|--------------------------|-----------|-----------------------------------|-----------|-----------------------|--|
| | Full time | Part time | Full time | Part time | Full time | Part time | |
| 1960 | 1.234 | 94 | | | 808 | 32 | |
| 1961 | 1,478 | 112 | 11 | 1 | 921 | . 38 | |
| 1962 | 1,561 | 123 | 11 | - | 887 | 51 | |
| 1963 | 1,499 | 145 | 65 | 1 | 701 | 52 | |
| 1964 | 1,516 | 146 | 44 | 6 | 752 | . 54 | |
| 1965 | 1.769 | 201 | 21 | | 849 | 69 | |
| 1966 | 2,013 | 197 | 9. | | 960 | 78 | |
| 1967 | 2,436 | 252 | 7 | - | 1,048 | . 94 | |
| 1968 | 2,771 | 275 | 7 | discretiza . | 1,148 | 87 | |

SOURCE: Ontario Hospital Services Commission, Annual Report (Statistical Supplement), 1960-1968. Numbers include non-registered personnel.

2,042 to 3,926. Employment of part-time technologists has increased even more rapidly, from 126 in 1960 to 362 in 1968. Of the two major groups, laboratory technologists have grown the most rapidly from 1,234 in 1960 to 2,771 in 1968, an increase of 125 per cent.15

An indication of the size increases in these manpower groups is given by data on enrolment and graduation from formal training programs in public general hospitals in Ontario. In Table 6.41 these data for laboratory technologists are presented. There appears to be a general upward trend in the number of hospitals

TABLE 6.41 Number of Laboratory Technologists Enrolled and Graduating From Formal Training Programs in Ontario Public General Hospitals, 1960-1968

| | | Enrolmer | nt at Dec. 31 | Number tl | Number that graduated | |
|------|--------------------------------------|----------|--|-----------|--|--|
| Year | Number of hospitals or schools | Number | Percentage of change from previous year | Number | Percentage of change from previous year | |
| 1960 | 45 | 228 | | 107 | | |
| 1961 | 48 | 299 | 31.1 | 126 | 17.8 | |
| 1962 | 52 | 356 | 19.1 | 201 | 59.5 | |
| 1963 | 55 | 414 | 16.3 | 189 | — 6.0 | |
| 1964 | 51 | 498 | 20.3 | 146 | 22.8 | |
| 1965 | 54 | 484 | 4 | 232 | 58.9 | |
| 1966 | 55 | 537 | 11.0 | 212 | 8.6 | |
| 1967 | 56 | 550 | 2.4 | 260 | 22.6 | |
| 1968 | 58 | 554 | 0.7 | 259 | -0.4 | |

Source: Ontario Hospital Services Commission, Annual Report (Statistical Supplement), 1960-1968.

¹⁵ See CERCL, Private Clinical Laboratories in Ontario, Committee on the Healing Arts, Queen's Printer, Toronto, 1969. Some 365 laboratory technicians are known to have been employed in private clinical laboratories in 1967, when the study was prepared.

with formal training programs, enrolment and graduations. Early rapid increases in enrolment seemed to level off by 1966. This levelling off is then reflected in the data on graduations. In general, however, annual changes in the number of graduates showed very marked fluctuations. For example, the 1962 graduating class was nearly 60 per cent greater than the previous year; the 1963 class, however, was 6 per cent smaller than the 1962 graduating class.

Similar information on the other major group of technologists, the radiological technicians, is presented in Table 6.42. Rapid increases in enrolment in the early 1960's are seen to slowly taper off until there is an actual decrease in 1967. The number of students graduated has, with a one-year lag, displayed a similar pattern of growth. It would thus appear that the great increases in training of both the number of radiological technicians and laboratory technologists witnessed in the last decade have levelled off.

TABLE 6.42 Number of Radiological Technicians Enrolled and Graduating from Formal Training Programs in Ontario Public General Hospitals, 1960-1968

| Number of hospitals Year or schools | Enrolme | Enrolment at Dec. 31 | | Number that graduated | | |
|---|-----------|----------------------|--|-----------------------|--|--|
| | hospitals | Number | Percentage of change from previous year | Number | Percentage of change from previous year | |
| 1960 | 57 | 281 | | 119 | | |
| 1961 | 58 | 326 | 16.0 | 112 | — 5.9 | |
| 1962 | 59 | 373 | 14.4 | 125 | 11.6 | |
| 1963 | 64 | 412 | 10.5 | 164 | 31.2 | |
| 1964 | 64 | 429 | 4.1 | 176 | 7.3 | |
| 1965 | 63 | 457 | 6.5 | 183 | 4.0 | |
| 1966 | 64 | 478 | 4.6 | 212 | 15.8 | |
| 1967 | 64 | 476 | 4 | 219 | 3.3 | |
| 1968 | 64 | 500 | 5.0 | 213 | — 2.7 | |

Source: Ontario Hospital Services Commission, Annual Report (Statistical Supplement), 1960–1968.

Chiropractors, Osteopaths and Podiatrists

There were 532 registered chiropractors residing in Ontario in 1968 of whom 350 to 400 are estimated to be in active practice. It is seen from the data presented in Table 6.43 that this number has remained fairly constant through the last two decades. There were 533 chiropractors registered in 1951 and 532 in 1968. Interestingly, there was a much larger number of registrants in the early 1960's; a high of 564 was set in 1961.

Potential increases in the size of the chiropractic manpower group are indicated by data on enrolment and graduation in recent years. These data are presented in Table 6.44 for the Canadian Memorial Chiropractic College, the sole Canadian chiropractic school, for 1963 to 1968. The total number graduated during the period was 176 of whom nineteen were females. The annual number

TABLE 6.43 Number of Registered Chiropractors, Osteopaths and Podiatrists Resident in Ontario, 1950-1969

| Year | Chiropractors | Osteopaths | Podiatrists |
|------|---------------|------------|-------------|
| 1950 | 533(1951) | 102 | 67 |
| 1960 | 556 | 12 | 66 |
| 1961 | 564 | n.a. | n.a. |
| 1962 | 550 | n.a. | n.a. |
| 1963 | 548 | n.a. | n.a. |
| 1964 | 526 | n.a. | n.a. |
| 1965 | 536 | 67 | 71 |
| 1966 | 527 | • 60 | n.a. |
| 1967 | 532 | 60 | n.a. |
| 1968 | 532 | 52 | n.a. |
| 1969 | n.a. | 50 | n.a. |

SOURCE: The Board of Directors of Chiropractic, the Board of Directors of Osteopathy, and the Board of Regents of Chiropody of Ontario.

of graduates is seen to have increased sharply from nineteen in 1962-1963 to thirty-seven in 1965-1966 and then to have levelled off to thirty-six in 1967-1968. Full-time undergraduate enrolment is itself seen to have increased to a peak of 202 full-time students in 1965-1966 only to level off to 189 in 1967-1968.

We have also presented in Table 6.43 data reported by the Board of Directors of Osteopathy on the number of registered osteopaths in 1969; of a total of fiftynine some fifty were resident in Ontario. Significantly, the number of osteopaths has declined rapidly in the last two decades from a high of 102 in 1951.

The data on the number of podiatrists that are readily available are also presented in Table 6.43. In 1965 there were seventy-one registered podiatrists actually practising in Ontario. This number appears to have been roughly the same over

TABLE 6.44 Number of Undergraduates and Graduates Enrolled at the Canadian Memorial Chiropratic College and Numbers of Graduates, by Year and by Sex, 1962-1963 to 1967-1968

| Year | | ate enrolment Female | | uated Female | |
|-----------|-----|-------------------------|----|-----------------|--|
| 1962–1963 | 117 | 14 | 19 | 3 | |
| 1963-1964 | 133 | 12 | 26 | 4 | |
| 1964-1965 | 144 | 12 | 23 | 4 | |
| 1965-1966 | 202 | 8 | 37 | 1 | |
| 1966-1967 | 195 | 14 | 35 | 4 | |
| 1967-1968 | 189 | 12 | 36 | 3 | |

SOURCE: DBS, Survey of Higher Education, Part I, fall enrolment in universities and colleges. Annually.

DBS, Survey of Higher Education, Part II, degrees, staff and summary. Annually.

the last two decades. One centre of podiatric activity appears to be the urban hospital. There were eight podiatric clinics operated in general hospitals in 1966, all in large population centres.

Physiotherapists and Occupational Therapists

In Table 6.45, data on the number of registered physiotherapists in Ontario over the period from 1958 to 1969 are presented. The size of this group has almost trebled over this period, from 437 physiotherapists in 1958 to 1,259 in 1969. This increase has been much more rapid than the increase in population with the result that the number of persons per physiotherapist has fallen from 13,320 in 1958 to 5,871 in 1969. In spite of this increase, physiotherapists still account for less than one per cent of total health care personnel in Ontario in 1967.

TABLE 6.45
Registered Physiotherapists, Ontario, 1958-1969

| Year Official register | | Population (000's) | Population per physiotherapist | Yearly new registrants ¹ | |
|------------------------|--------------|--------------------|--------------------------------|-------------------------------------|--|
| 1958 | 58 437 5,821 | | 13,320 | | |
| 1959 | 451 | 5,969 | 13,235 | 125 | |
| 1960 | 482 | 6,111 | 12,678 | 112 | |
| 1961 | 492 | 6,236 | 12,675 | 86 | |
| 1962 | 520 | 6,351 | 12,213 | 117 | |
| 1963 | 546 | 6,481 | 11,870 | 111 | |
| 1964 | 618 | 6,631 | 10,730 | 150 | |
| 1965 | 712 | 6,788 | 9,534 | 192 | |
| 1966 | 859 | 6,961 | 8,104 | 233 | |
| 1967 | 971 | 7,149 | 7,363 | 245 | |
| 1968 | 1,106 | 7,306 | 6,606 | 354 | |
| 1969 | 1,259 | 7,392 | 5,871 | | |

¹ Includes reregistrants. The discrepancy between yearly new registrants and the annual increase in the official Register is the number of physiotherapists who become inactive.

Source: The Board of Directors of Physiotherapy, Province of Ontario.

From data obtained from the Board of Directors of Physiotherapy, we know the place of training of all registrants in 1968 and of new registrants in each of 1967 and 1968. In 1968, of a total of 1,106 registrants, 578 were trained in Ontario, ninety-three were trained elsewhere in Canada, and 435 were trained outside Canada. In 1967 and 1968, together, of a total of 504 new registrants, 187 were trained in Ontario, seventy were trained in other Canadian provinces, and 247 were trained elsewhere. These figures show that Ontario is falling far short of producing its own physiotherapists.

As the hospital is the principal location of the practice of the physiotherapist, information on the number employed in hospitals is instructive. The data in Table 6.46 suggest that well over 600 physiotherapists were employed in public general and allied special hospitals in 1968. A further 130 physiotherapists were known to work in private practice in 1969. It may be noted that the number of

physiotherapists employed in hospitals has more than tripled since 1960; this parallels the near trebling of the number of registered physiotherapists over the same period.

Turning now to occupational therapists, we also present in Table 6.46 the number of occupational therapists employed in public general and special hospitals. Some 233 occupational therapists, thirty of whom were part time, were so employed in 1968. As only forty-six occupational therapists had worked for these hospitals in 1960, there has been a five-fold increase in the level of employed of this type of personnel.

TABLE 6.46

Number of Physiotherapists and Occupational Therapists in Public General and Allied Special Hospitals, Ontario 1960 to 1968¹

| | Physiotl | nerapists | Occupational therapists | | |
|------|-------------|-----------|-------------------------|-----------|--|
| Year | - Full time | Part time | Full time | Part time | |
| 1960 | . 192 | 34 | 33 | 13 | |
| 1961 | 263 | 54 | 53 | 13 | |
| 1962 | 308 | 64 | 84 | 10 | |
| 1963 | 352 | 72 | 104 | 8 | |
| 1964 | 385 | 76 | 103 | 15 | |
| 1965 | 449 | . 96 | 116 | 12 | |
| 1966 | 500 | 114 | 143 | 26 | |
| 1967 | 567 | 110 | 173 | 26 | |
| 1968 | 603 | . 36 | 203 | 30 | |

¹ Figures represent employees working as physiotherapists and occupational therapists, who are not necessarily fully qualified.

Source: Ontario Hospital Services Commission, Annual Report (Statistical Supplement), 1960–1968.

As can be seen from the data presented in Table 6.47, Queen's University has recently instituted separate courses in physiotherapy and occupational therapy, and the University of Western Ontario has commenced a program in physiotherapy. Their combined enrolment in 1967-1968, however, was about 10 per cent of

TABLE 6.47
Full-time Enrolment in Physiotherapy and Occupational Therapy, Ontario Universities, 1961-1968

| | Queen's¹ | University of Toronto ² | University of Western Ontario ³ |
|-----------|-----------|------------------------------------|--|
| 1961-1962 | - | 232 | |
| 1962-1963 | - | 304 | _ |
| 1963-1964 | excerneds | 295 | name of the last o |
| 1964–1965 | decision. | 293 | |
| 1965-1966 | - | 270 | _ |
| 1966–1967 | - | 282 | greending |
| 1967-1968 | 28 | 309 | . 6 |

¹Total enrolment for both physiotherapy and occupational therapy programs.

Source: Fall Enrolment in Universities and Colleges. Queen's Printer, Ottawa (annual).

²Total enrolment in combined physiotherapy and occupational therapy programs.

³Total enrolment in physiotherapy program.

Medical Record Librarians, Enrolment, Graduation and Employment Statistics, Ontario, 1960-1968 TABLE 6.48

Numbers probably include some librarians not formally qualified.

SOURCE: Ontario Hospital Services Commission, Annual Reports (Statistical Supplement), 1960-1968.

that at the University of Toronto where some 500 students are enrolled yearly. Since 1961-1962, enrolment in the University of Toronto course has increased about 33 per cent, from 232 students to 309 students in 1967-1968. All the undergraduates at the University of Toronto are female. There are, however, a small number of male graduate students.

Medical Record Librarians

In 1968 there were 295 medical record librarians employed full time in public general hospitals and twenty-seven were employed part time, as shown by the data presented in Table 6.48. The number of medical record librarians so employed has been rising steadily since 1960. The Canadian Association of Medical Record Librarians reports 481 qualified technicians and librarians. Of this total, 329 are registered. It is not necessary, however, to be registered in order to practise.

Data on the enrolment and graduation of medical record librarians are also presented in Table 6.48. There are three hospitals which train medical record librarians: St. Michael's Hospital, Toronto; Hotel Dieu in Kingston; and Ottawa General Hospital. By far the largest centre for training medical record librarians in St. Michael's, which had graduated a total of 252 medical record librarians up to 1967. Both enrolment and number of graduates from all three programs are rising, with about thirty enrolled and a slightly smaller number successfully completing the year.

Psychologists

There were a total of 552 psychologists registered in Ontario in 1966. Of these, 238 were clinical psychologists, the majority of whom were located in hospitals and clinics. Another 119 were engaged in university teaching programs. Four to six psychiatric units of general hospitals train student psychologists with the number of student psychologists trained varying from ten to sixty-four. The most usual number of student psychologists trained is fifteen. Eight to eleven mental hospitals also train student psychologists.

Social Workers

The level of education and place of employment of Ontario's 2,938 social workers are many and varied. To distinguish between medical, psychiatric and other social workers most related to health care is difficult. Landauer's report for the Committee on the Healing Arts lists 225 psychiatric social workers, 331 child care workers, and 160 medical social workers in general hospitals; but these include people without professional qualification. In 1966 there were eighty-two workers with a Master of Social Work degree (M.S.W.), twenty-three with a Bachelor of Social Work degree (B.S.W.), and seventy-seven other social workers employed in Ontario mental hospitals. In 1967 there were an additional forty-six M.S.W.'s, thirty B.S.W.'s, and sixty-seven other social workers in public general hospitals. These figures correspond very roughly to the division between medical and psychiatric social workers. Their sum puts the total number of health-related social workers at 325.

We might mention that the degree of B.S.W. was abolished by the University of Toronto School of Social Work in 1966. In 1966-1967 and 1967-1968 eighty and eighty-four, respectively, graduated with the degree of M.S.W. from this School.

Speech Pathologists and Audiologists

The number of full-time members of the Ontario Speech and Hearing Association increased from twenty-nine in 1960 to seventy-four in 1968. When associate members are considered, total membership in the Association exactly doubled since 1960 rising from fifty-three to 106. To be a member, one must have a Ph.D. or an M.A. in Speech Pathology or Audiology, a diploma with three years' experience, or a B.A. with special considerations.

Dietitians

There were 428 members in the Ontario Dietetic Association in 1969 and of these, 352 were employed. Since 1960, membership in the Association has increased, while the number of members employed has remained roughly constant. The greatest number of members are employed in hospitals. Full-time employment in this location increased from 248 in 1960 to 344 in 1968. Clearly many of the dietitians employed in these hospitals are not members of the Ontario Dietetic Association. We might note that Ontario is relatively well endowed with training programs for dietitians; there are four universities and eight hospitals involved in the educational process.

Resources in the Hospital Subsector

There are 372 hospitals in Ontario with a total capacity of about 74,000 beds. These range in size from small federal nursing stations of four beds to large mental hospitals with more than 1,500 beds. Almost one-third of all beds in the province are located in psychiatric and mental hospitals, while public active treatment hospital beds account for nearly 50 per cent of total bed capacity (see Table 6.4).

In Table 6.49 we present historical data on bed capacity of certain hospitals in Ontario. Bed capacity of all kinds, excluding bassinets, in public general and allied special hospitals has grown from 13,700 beds in 1932 to 46,700 in 1968. For every 1,000 residents of the province there are now 6.4 beds in general hospitals compared with 4.0 in 1932. While the number of beds in mental and psychiatric institutions has almost doubled, the increase was barely larger than the growth in population. There were 3.3 psychiatric beds for every 1,000 Ontario residents in 1950 compared with 3.5 in 1968. The number of tuberculosis beds began to decline in the mid-1950's and is now just over 1,000. In the case of both tuberculosis and psychiatric disorders, new drugs have played the principal role in diminishing the need for hospital beds.

The overall growth in hospital facilities has required increasing numbers of hospital staff, as shown by the data in Table 6.50. The increase in the number

TABLE 6.49 Bed Capacity of Hospitals, Ontario, 1932-1968

| | Public and allie | general d special | Mer | ntal² | Tuberculosis | | |
|-------|------------------|----------------------|----------|--|--------------|------------|--|
| | Bed | Per 1,000 | Bed | Per 1,000 | No. of beds | Per 1,000 | |
| | capacity | population | capacity | population | set up | population | |
| 1932 | 13,718 | 4.0 | 11,666 | _ | | - | |
| 1938 | | | 13,237 | | 3,503 | 1.0 | |
| 1947 | 17,077 | 4.1 | 15,864 | and the same of th | 4,023 | 1.0 | |
| 1948 | 17,160 | 4.0 | 16,099 | | 4,308 | 1.0 | |
| 1949 | 18,120 | 4.1 | 14,290 | - | 4,262 | 1.0 | |
| 1950 | 19,192 | 4.3 | 14,540 | 3.3 | 4,476 | 1.0 | |
| 1951 | 19,461 | 4.2 | 15,090 | 3.3 | 4,480 | 1.0 | |
| 1952 | 22,251 | 4.7 | 15,415 | 3.2 | 4,412 | .9 | |
| 1953 | 23,057 | 4.7 | 15,413 | 3.1 | 4,577 | .8 | |
| 1954 | 26,087 | 5.1 | 17,008 | 3.3 | 4,515 | .9 | |
| 1955 | 27,150 | 5.2 | 18,391 | 3.5 | 4,482 | .9 | |
| 1956 | 28,955 | 5.4 | 18,409 | 3.4 | 4,413 | .8 | |
| 1957 | 29,379 | 5.2 | 19,243 | 3.4 | 4,346 | .8 | |
| 1958 | 29,860 | 5.1 | 20,495 | 3.5 | 4,196 | .7 | |
| 1959 | 31,491 | 5.3 | 20,699 | 3.5 | 3,493 | .6 | |
| 1960 | 32,942 | 5.4 | 21,679 | 3.6 | 2,944 | .5 | |
| 1961 | 34,505 | 5.5 | 23,906 | 3.8 | 3,536 | .6 | |
| 1962 | 36,019 | 5.7 | 23,364 | 3.7 | 2,994 | .5 | |
| 1963. | 38,141 | 5.9 | 24,265 | 3.8 | 2,364 | .4 | |
| 1964 | 39,886 | 6.0 | 23,563 | 3.6 | 1,686 | .3 | |
| 1965 | 40,506 | 6.0 | 23,968 | 3.6 | 1,641 | .2 | |
| 1966 | 42,857 | 6.2 | 24,318 | 3.5 | 1,342 | 2 | |
| 1967 | 44,361 | 6.2 | 24,698 | 3.5 | 1,187 | .2 | |
| 1968 | 46,7321 | 6.4 | | | 1,021 | .1 | |

¹ There is a discrepancy of over 100 beds between this figure and the one given in Table 6.4. Note that two different sources are used.

Sources: DBS, Hospital Statistics, 1966, Vol. I, Queen's Printer, Ottawa, Table 14; and 1959, Vol. I, Table 12.

DBS, Hospital Statistics, 1967: Preliminary Annual Report, Queen's Printer, Ottawa 1968, Table 3.

DBS, List of Canadian Hospitals, 1969, Queen's Printer, Ottawa, 1969, Table 1.

DBS, Mental Health Statistics, 1967, Vol. III, Queen's Printer, Ottawa, 1969, Table 2. DBS, Tuberculosis Statistics, 1967, Vol. II, Queen's Printer, Ottawa, 1969, Table 3; and 1963, Vol. II, Table 3.

of part-time workers in general hospitals has been particularly large, from 3,000 in 1953 to 14,000 in 1967, an increase of almost 400 per cent. Numbers of full-time employees in both mental and general hospitals more than doubled in the same fifteen-year period.

Growing bed capacity and numbers of personnel have made possible a larger volume of hospital care. In Table 6.51 we present several measures of the utilization of hospital services from 1953 to 1966 and a few measures for 1932. Admissions per 1,000 population to public general hospitals have grown fairly

² Includes psychiatric wings in public general and federal hospitals. In 1967 there were 859 beds in public general hospitals and 604 beds in federal hospitals.

| | | TABL | E 6.50 | |
|-----------|----|---------|------------|-----------|
| Personnel | in | Ontario | Hospitals, | 1938-1967 |

| | | allied special itals ¹ | Mental hospitals | Tuberculosis hospitals Total | | |
|------|-----------|-----------------------------------|---------------------|------------------------------------|--|--|
| | Full time | Part time | Full time | | | |
| 1938 | | | discovered to | 1,753 | | |
| 1946 | | province | 3,697 | 1,938 | | |
| 1953 | 38,076 | 3,019 | 6,389 | 2,779 | | |
| 1954 | 40,551 | 3,247 | 7,108 | 2,702 | | |
| 1955 | 43,261 | 3,626 | 6,800 | 2,644 | | |
| 1956 | 46,318 | 4,687 | 7,804 | 2,618 | | |
| 1957 | 49,554 | 5,521 | 8,962 | 2,433 | | |
| 1958 | 53,129 | 6,023 | 9,958 | 2,422 | | |
| 959 | 57,304 | 8,154 | 10,538 | 2,237 | | |
| 960 | 63,372 | 8,807 | 11,185 | 1,923 | | |
| 961 | 65,748 | 8,754 | 11,873 | 1,930 | | |
| .962 | 70,394 | 10,808 | 12,621 | 1,844 | | |
| 963 | 74,078 | 11,239 | 13,485 | 1,944 | | |
| .964 | 77,250 | 11,882 | 13,658 | 1,433 | | |
| .965 | 80,749 | 12,767 | 14,147 | 1,311 | | |
| 966 | 83,101 | 14,541 | 15,293 | 1,226 | | |
| 1967 | 84,601 | 14,688 | 16,377 | 1,167 | | |

¹Public, private and federal hospitals.

Sources: DBS, Hospital Statistics, Vol. 1: General Information, 1953-1958, Queen's Printer, Ottawa

DBS, Hospital Statistics, 1965, Vol. III, Queen's Printer, Ottawa, 1967. DBS, Hospital Statistics, 1966, Vol. III, Queen's Printer, Ottawa, 1968.

DBS, Hospital Statistics, 1967, Preliminary Annual Report, Queen's Printer, Ottawa, 1968, Tables 14 and 15.

DBS, Mental Health Statistics, 1966, Vol. III, Queen's Printer, Ottawa, 1968, Table 8; and 1967, Vol. III, Table 8.

DBS, Tuberculosis Statistics, 1963, Vol. II, Queen's Printer, Ottawa, 1965, Table 7; 1966, Vol. II, Table 6; and 1968, Vol. II, Table 6.

steadily from 1953 onward, indicating that a larger proportion of a growing population is receiving hospital treatment. A small increase in the average length of stay of patients (see the column headed "mean stay of separations") has also contributed to growing quantity, and perhaps quality, of hospital care.

In Table 6.52 data are given from which estimates of average hospital sizes for various categories of hospitals can be made. In addition to the Ontario mental hospital facilities, as of December 1968 there were 1,338 patients accommodated in residential homes and 4,786 in nursing homes approved under the Ontario Department of Health's Homes for Special Care Program. 16

A count of the major types of personnel staffing the public general, special, mental and tuberculosis hospitals appears in Table 6.53. Except in tuberculosis hospitals, nursing staff of all kinds account for over half the total hospital work force. The largest of the professional-technical groups outside of nursing are the laboratory and radiological technicians. Staff involved directly in the care of patients comprise about two-thirds of all hospital workers.

¹⁶See the Ontario Department of Health's 44th Annual Report, 1968.

TABLE 6.51 Measures of Hospital Utilization, Ontario, 1932, 1953-1967, Public General and **Allied Special Hospitals**

| Year | Admissions | Admissions per 1,000 population | Admissions per bed | Mean stay of separations | Percentage occupancy |
|------|------------|---------------------------------------|--------------------|--------------------------|----------------------|
| 1932 | 188,210 | aundratik | 13.7 | | 55.0 |
| 1953 | 634,273 | 128.4 | 27.5 | 11.0 | 86.1 |
| 1954 | 683,132 | 133.5 | 26.2 | 10.9 | 80.9 |
| 1955 | 711,940 | 135.2 | 26.2 | 10.9 | 81.2 |
| 1956 | 754,881 | 139.7 | 26.1 | 11.3 | 80.0 |
| 1957 | 790,980 | 140.3 | 26.9 | 11.0 | 82.8 |
| 1958 | 815,746 | 140.1 | 27.3 | 10.9 | 83.6 |
| 1959 | 835,828 | 140.0 | 26.5 | 11.3 | 84.2 |
| 1960 | 868,739 | 142.2 | 26.4 | 11.9 | 84.8 |
| 1961 | 897,859 | 144.0 | 26.0 | 11.8 | 85.4 |
| 1962 | 915,184 | 144.1 | 25.4 | 12.3 | 84.8 |
| 1963 | 950,155 | 146.6 | 24.9 | 12.2 | 83.3 |
| 1964 | 982,683 | 148.2 | 24.6 | 12.3 | 83.3 |
| 1965 | 993,977 | 146.4 | 24.6 | 12.6 | 84.5 |
| 1966 | 1,022,071 | 146.8 | 24.5 | 12.6 | 84.4 |
| 1967 | 1,004,847 | | 23.8 | 12.5 | 83.7 |

Sources: DBS, Hospital Statistics, 1967, Vol. I, Queen's Printer, Ottawa, 1969, Table 14.

Colleges of Applied Arts and Technology Programs

An essentially new resource for the training and education of health care personnel has recently been introduced in Ontario-Colleges of Applied Arts and Technology. They thus join the hospitals and other educational institutions noted in the health manpower section of this chapter as a component of the educational subsector of the hospital sector.

A special survey of the Colleges of Applied Arts and Technology was conducted by the Committee by letter to each of the Colleges. As the programs in the Colleges of Applied Arts and Technology are new, it was felt that their numbers would not be reflected in published data. Also because the programs are new, they have been grouped together in order to determine what role the Colleges of Applied Arts and Technology are playing and may be expected to play in the education of health personnel.

The Colleges of Applied Arts and Technology are becoming an important force in the education of health personnel. The following groups are being trained presently: biomedical engineering technicians, child care workers, dental assistants, dental technicians, inhalation therapists, medical laboratory technologists, medical TABLE 6.52

Bed Capacity of Hospitals, Ontario, 1969

| | nag | Japacus or 11 | aca capacity of trospitats, Ontario, 1909 | | |
|--|---------------------|----------------|---|-----------|-------------|
| | No. of hospitals | No. of beds | | No. of | No. of |
| HOSPITAL | | | ALLIED SPECIAL HOSPITALS | HOSPitato | Occas |
| Public 1 – 9 beds | No. | - Constitution | | 200 | 3.414 |
| 10 - 24 | ∞ | 157 | | 22 | 542 |
| 25 - 49 | 30 | 1,164 | Convalescent | 1 | 1 300 |
| 50 - 99 | 40 | 2,881 | | , | 20064 |
| 100 – 199 | 37 | 5,118 | Rehabilitation | 2 | 155 |
| 200 – 299 | 22 | 5,308 | Maternity | ı — | 20 |
| 300 – 499 | 29 | 10,726 | Miscellaneous | ı m | 000 |
| 500 - 666 | 16 | 10,751 | | - | 174 |
| 1,000 beds or more | 4 | 5,309 | | 13 | 179 |
| Total public general | 186 | 41,414 | Federal | 4 | 16 |
| Private | 11 | 574 | Orthopaedic | · | 96 |
| Federal | 4 | 2,031 | | 31 | 850 |
| Total general | 201 | 44,019 | Total special | 101 | 6,834 |
| HOSPITALS FOR PSYCHIATRIC DISORDERS ¹ | RDERS1 | | | | |
| Public provincial ² | 26 | 22,189 | TUBERCULOSIS HOSPITALS | | |
| Public other ³ | 5 | 363 | Public | 11 | 1.021 |
| Private | 10 | 804 | Federal | | 150 |
| Units in Sanatoria | 5 | 456 | Total tuberculosis | 12 | 1,171 |
| Total psychiatric | 46 | 23,812 | All hospitals | 360 | 75.836 |
| | | | * | |))) , , , |

Units in federal hospitals included under federal general hospitals.

Residential units of Ontario hospitals are included in the number of beds given.

Includes the Clarke Institute and the Donwood Foundation.

Refers to public lay, religious or municipal hospitals. Provincial hospitals are designated as such.

These are "contract nursing homes"—i.e., OHSC approved homes. As of December 31, 1968, there were 465 licensed nursing homes in Ontario with a total bed capacity of 13,708—see Ontario Department of Health, 44th Annual Report, 1968.

SOURCE: DBS, List of Canadian Hospitals, 1969, Queen's Printer, Ottawa, 1969, Table 1.

TABLE 6.53 Full-time and Part-time Personnel of Public General, Special, Mental and Tuberculosis Hospitals, Ontario, 1967-1968

| | Public g | | Public s hospi | | Men hospit | | | culosis pitals³ |
|--|-----------------------------------|------------------------------|-------------------|------------------------|--------------------------------------|----------------------------------|----------------------|--------------------|
| Type of personnel ¹ | Full time | Part time | Full time | Part time | Full time | Part time | Full time | Part time |
| Hospital administrators Medical directors | 182 16 | 4 2 | 27 4 | | 8 26 | 2 5 | | |
| Medical staff Nursing staff | 2,134 | 510 | 39 | 111 | 281 | 301 | .1 | 7 |
| Total | 45,586 | 8,481 | 3,652 | 573 | 9,148 | 440 | 348 | 76 |
| Directors and supervisors Graduate nurses Student nurses Nursing assistants Nursing assistant | 1,704 18,124 7,694 7,127 | 265 5,606 — 1,134 | 1,215 — | 314 | 37 1,426 528 1,972 | 6 | 17 120 9 35 | 13 27 10 |
| trainees Orderlies | 702 2,623 | 214 | = | _ | 586 4,599 | | 4 45 | 8 |
| Other nursing staff Other professional | 7,612 | 1,262 | 2,437 | 259 | 4,599 | | 118 | . 18 |
| and technical Total | 5,839 | 664 | 336 | 101 | 1,126 | 162 | 19 | 15 |
| Assistant hospital administrators Dietitians Medical record | 111 321 | 2 31 | 13 23 | 2 3 | | 8 | 1 2 | 2 2 |
| librarians Technicians— | 295 | 27 | | | | | _ | 1 |
| laboratory radiological combined | 2,777 1,148 7 | 275 87 | | _ | 48 32 | 9 5 | 8 4 | 2 2 1 |
| Physiotherapists Occupational | 517 | 101 | 86 | 36 | 5 | 3 | - | 3 |
| therapists Other therapists Pharmacists Psychologists Social workers Dentists | 125 313 45 180 | 13 71 34 23 | 78 | 17 — — — — | 163 265 34 131 198 21 | 15 77 11 44 23 11 | 1 2 - 1 | 1 1 - |
| Other Other hospital staff Total | 29,806 | 4,906 | 136 2,173 | 43 374 | 2065,788 | 26 168 | 519 | 87 |

| | TABLE 6.53 (Continued) |
|---------------|--|
| Full-time and | Part-time Personnel of Public General, Special, Mental and |
| | Tuberculosis Hospitals, Ontario, 1967-1968 |

| Type of personnel ¹ | Public g hospit Full time | | Public s hospit Full time | | Men hospit Full time | | Tubero hosp Full time | |
|--------------------------------|------------------------------------|--------|------------------------------------|-------|-------------------------------|-------|--------------------------------|-----|
| Administration | 5,159 | 1,108 | 385 | 87 | 1,288 | 43 | | |
| Dietary | 6,863 | 1,871 | 614 | 124 | 1,781 | 69 | | |
| Laundry | 1,827 | 273 | 144 | 17 | 429 | 18 | | |
| Linen | 509 | 55 | 73 | 8 | 911 | 15 | | |
| Housekeeping | 6,506 | 639 | 447 | 23 | 911 | | | - |
| Maintenance and | | | | | | | | |
| operation | 2,708 | 108 | 238 | 11 | 947 | 11 | | - |
| Other | 6,234 | 852 | 272 | 104 | 432 | 12 | | |
| Grand total | 83,563 | 14,567 | 6,231 | 1,181 | 16,377 | 1,078 | 887 | 185 |

¹ May include non-classified professional and technical personnel.

Source: Ontario Hospital Services Commission, Annual Report (Statistical Supplement), 1968 in advance from OHSC 1967.

DBS, Mental Health Statistics, 1967, Vol. III, Queen's Printer, Ottawa, 1969, Tables 14–20. DBS, Tuberculosis Statistics, 1967, Vol. II, Queen's Printer, Ottawa, 1969, Tables 8 and 9.

record technicians, nurses, nursing assistants, ophthalmic assistants, prosthetic technicians, radiological technicians, residential counsellors (mental retardation) and social service workers. Ryerson Polytechnical Institute offers courses for nurses and public health inspectors. The four groups trained by the greatest number of Colleges of Applied Arts and Technology are child care workers, medical laboratory technologists, nurses and social service workers. A factor equally important as the number of programs being offered is that the Colleges of Applied Arts and Technology are located throughout the province. This may result in a more even distribution of personnel in the province.

In the nomenclature adopted in this area a technologist is the product of a three-year post-secondary program in a College of Applied Arts and Technology. Technicians are trained in a one or two-year post-secondary program in a college. The colleges are showing themselves to be flexible. For example, several of them are offering academic courses to nurses. They are also participating in apprenticeship programs, as well as offering programs totally within their own physical plant.

Table 6.54 summarizes the information available at the time of writing about the relevant programs currently available (September 1969) for training health workers in Colleges of Applied Arts and Technology.

Algonquin College in Ottawa offers the only program for biomedical engineering technicians. The program consists of a two-year course. About thirty students are enrolled annually with about fifteen graduates per year.

² Figures are for 1968.

³ Figures are for 1967.

Five colleges are offering programs for child care workers: George Brown (Toronto), Conestoga (Kitchener), Fanshawe (London), St. Lawrence (Kingston) and Centennial (Toronto). Programs in child care work are also currently being proposed for Mohawk (Hamilton) and Seneca (Toronto). The course consists of two years at the college. Thus far, twenty-four students have graduated.

Dental assistants are trained at George Brown (Toronto) and St. Clair (Windsor). The course lasts for one year. No students have actually graduated from the program thus far. Dental technicians are being trained in a three-year program at George Brown in Toronto. Twelve students graduated from the program in 1969.

Inhalation therapists are trained at Fanshawe College (London). The course lasts for two years with the entire first year spent at Fanshawe, while students are training predominantly in local hospitals during the second year. Three students graduated in 1969.

Medical laboratory technologists are trained at Algonquin (Ottawa), Lambton (Sarnia), Cambrian (North Bay) and St. Clair (Windsor). A program is proposed for Northern College (Porcupine campus). The total program consists of three years, although substantial periods of time are spent in the hospital rather than in taking formal courses at the college. No students have graduated from these programs to date.

Medical record technicians are being trained in a two-year course at Niagara College (Welland). Twenty-seven students were enrolled in 1968-1969 with the first graduates being projected for 1969-1970.

Seven colleges are teaching academic courses (such as English, economics and sociology) to nurses in hospital and regional schools in their area.

Humber (Rexdale) offers a course to nursing assistants lasting for twenty weeks. It expects to graduate its first class of thirty students in 1969-1970.

Centennial (Scarborough) trains ophthalmic assistants in a six-week course followed by forty-four weeks of field work. The first class of fifteen will graduate in 1969-1970. A course for prosthetic technicians is proposed at Seneca (Toronto).

Confederation (Fort William) and Fanshawe (London) give radiological technicians courses during the student's two-year period in the hospital.

A one-year course at Humber (Rexdale) trains residential counsellors — mental retardation. Thirteen students graduated in 1968-1969 and the class is expected to double in 1969-1970.

Thirteen colleges train social service workers: Algonquin (Ottawa), Humber (Rexdale), Sir Sanford Fleming (Peterborough), Niagara (Welland), Mohawk (Hamilton), Cambrian (Sudbury), Northern (Timmins), Conestoga (Kitchener),

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Sheridan (Brampton), Confederation (Fort William), Fanshawe (London), St. Lawrence (Kingston) and Centennial (Scarborough). A course is proposed for Seneca (Toronto). In 1968-1969, 138 students graduated, making this by far the largest group of health-related personnel being trained in the colleges. Projected enrolment figures show 211 students graduating from the program in 1969-1970.

Ryerson Polytechnical Institute (Toronto) trains nurses in a two-year program from which thirty students graduated in 1968-1969. Ryerson also trains public health inspectors in a two-year program.

We have presented in Table 6.54 some of the information describing the nature and magnitude of the role played by these colleges in the training and education of health care personnel.

A more extensive set of tables giving quantitative data for the health care sector may be found in a study commissioned by the Committee and published as a separate volume.¹⁷

¹⁷See R. D. Fraser, Selected Economic Aspects of the Health Care Sector in Ontario, Committee on the Healing Arts, Queen's Printer, Toronto, 1970, Appendix I, II and III.

TABLE 6.54

Number of Health Personnel Enrolled and Graduated from the Ontario Colleges of Applied Arts and Technology, Length of Program, and Cooperating Educational Faculties, by Course and College, 1968-1969 and Projected for 1969-1970

| Course | Name of college and location | Length of program | Cooperating educational facilities | No. graduated July 1/68 to June 30/69 | Projected no. of graduates July 1/69 to June 30/70 | No. enrolled July 1/68 to June 30/69 | Frojected no- enrolled July 1/69 to June 30/70 |
|-----------------------------------|---------------------------------|---|---|--|--|--|---|
| Biomedical engineering technician | Algonquin, Ottawa | 2 years | | 14 | 15 | 24 | |
| Child care | Mohawk, Hamilton | 2 years | (Program being considered to commence in September, 1970) | ered to commence | in September, 1 | (026 | |
| | George Brown, Toronto | 2 years | 1 | 15 | 16 | 15 | |
| | Conestoga, Kitchener | 2 years | Various nurseries in the counties of Huron, Perth, Water- loo and Wellington | , | 50 | 1st yr. 20 2nd yr. 13 | 1st yr. 2nd yr. |
| | Fanshawe, London | 2 years | Various agencies for field placement | 7 | 1 | 1 | |
| | St. Lawrence, Kingston | 2 years | Kingston Psychiatric Hospital, Ontario Hospital | 1 | 25 | . 25 | |
| | Seneca, Toronto | 2 years | | | | | |
| | Centennial, Toronto | 2 years | I | | 1 | 1 | |
| Dental | George Brown, | 1 year | 1 | l | 18 | 1 : | |
| Transport | St. Clair, Windsor | 1 year | On-the-job-training with local dentists will currently limit program to 25 students | None— program commencing Sept. 1969 | 25 | 1 | |
| Dental technician | George Brown, | 3 years | | 12 | 13 | . 12 . | |
| Inhalation | Fanshawe College, London | 2 years in hospitals. 1st school year at Fanshawe 2-3 weeks only in 2nd year at Fanshawe. | Victoria and St. Joseph's Hospitals, London. | ė | 4 | 14 | i |

TABLE 6.54 (Continued)

Number of Health Personnel Enrolled and Graduated from the Ontario Colleges of Applied Arts and Technology, Length of Program, and Cooperating Educational Faculties, by Course and College, 1968-1969 and Projected for 1969-1970

| Name of college Length of and location program | Medical Algonquin 3 years (including laboratory College, 10 mth. hospital technician Ottawa internship) | Lambton, Sarnia 1 yr-,-two more yrs. at Sarnia Gen. Hosp. | following completion of 1st year at college. | Cambrian, 3 years | Northern College, Porcupine, | (proposed) St Clair, Windsor 3 yrs. made up of 3 semesters of classroom work followed by 2 months of clinical experience in area hospitals and pathology labs. The students return to 3 semesters of class- room work from Sept. to June after which they receive their diploma. This period is followed by 10 months of work in area hospitals and labs. | Medical Niagara College, 2 years record Welland |
|---|--|---|---|-------------------|------------------------------|---|---|
| h of | | | pletion | | | oom logy sturn ss- pt. to y y a. 'ved 'kin tbs. | rs |
| Cooperating educational facilities | Ottawa Civic Hospital Ottawa General Riverside Hospital St. Louis De Montfort St. Louis De Montfort Hospital Hospital Du | Sarnia General Hosp. | | Local hospitals | 1 | Cooperating with area pathologists | I |
| No. graduated July 1/68 to June 30/69 | 1 | 1 | 1 | 1 | 1 | None—course offered for first time Sept. 1969 | |
| Projected no. of graduates July 1/69 to June 30/70 | 25 | New program for Sept. 1969 | 4 | 1 | 1 | 1 | 23 |
| No. enrolled July 1/68 to June 30/69 | 30 | 1 | | 1 | I | 1 | 27 |
| Projected no. enrolled July 1/69 to June 30/70 | . 48 | 1 | | 20 | I | I | 57 |

TABLE 6.54 (Continued)

Number of Health Personnel Enrolled and Graduated from the Ontario Colleges of Applied Arts and Technology, Length of Program, and Cooperating Educational Faculties, by Course and College, 1968-1969 and Projected for 1969-1970

| | Projected no. enrolled July 1/69 to June 30/70 | 1 | 1 | 20 | 1-1- | 85 | 30 | 15 entered July 3, 1969 | 1 | 12 |
|---|---|--|---|-------------------------------------|--|--|-----------------|--|-----------------|--|
| | No. enrolled July 1/68 to June 30/69 | I | I | 1 | 11 | 63 | 30 | 1 | ľ | 13 |
| | Projected no. of graduates July 1/69 to June 30/70 | I | 1 | 1 | 1.1 | 85 | 30 | 15 | • | 65 |
| | No. graduated July 1/68 to June 30/69 | I | 1 | I | | 09 | I | I | 1 | 6 |
| | Cooperating educational facilities | Lorraine School of Nursing, Pembroke | Peterborough Civic and St. Joseph's Hospitals, Peterborough | Oshawa General | St. Joseph's Hospital Timmins Regional School of Nursing "buys" several | courses Scarborough Regional School of Nursing | 1 | I | | St. Joseph's General, Port Arthur. Port Arthur General Hospital. McKellar General, Fort William. |
| • | Length of program | Teachers from Algon- quin teach English and Economics subjects to 1st year Nurses at Lorraine School of Nursing, A 30 hour Human Relations course is attended by nurses from most area | 1st year Academic subjects | Teach some of the academic subjects | 2 years English and Sociology | 8 months (one course) | 20 weeks | 6 weeks + 44 weeks of Chemical or Field experience | 2 years | Attend confederation College for 5 months for lectures, labora- tories. At hospital for remainder of 2 year period. |
| | Name of college and location | Algonquin Upper Ottawa Valley Campus | Sir Sanford Fleming, Peterborough | Durham, Oshawa | Humber, Rexdale Northern, Porcupine Campus and Kirkland | Lake Campus Centennial, Scarborough | Humber College, | | Seneca, Toronto | OH |
| | Course | Nurses | | | | | Nursing | Ophthalmic assistant | Prosthetic | Radiological technician |

Number of Health Personnel Enrolled and Graduated from the Ontario Colleges of Applied Arts and Technology, Length of Program, and Cooperating Educational Faculties, by Course and College, 1968-1969 and Projected for 1969-1970 TABLE 6.54 (Continued)

| Projected no. enrolled July 1/69 to June 30/70 | 3 classes per year of approx. 20 per class. | 25 | 40 | 09 | 20 | 09 | 49 | 25 | 20 | 1st yr. 20 |
|---|--|---|---|-----------------|---|-----------------------------|---|--|------------------------------|------------------------|
| No. enrolled July 1/68 to June 30/69 | 3 classes per 3 year of approx. 3 20 per class. | 13 | 1 | 40 | 14 | 74 | 25 | 20 | I | 1st yr. 17 |
| Projected no. of graduates July 1/69 to June 30/70 | 3 classes per year of approx. 20 per class. | 25 | 1 | 20 | 20 | 32 | 20 | 18 | I | 17 |
| No. graduated July 1/68 to June 30/69 | 3 classes per year of approx. 20 per class. | 13 | 1 | 20 | 14 | 38 | - | 9 | ļ | 21 |
| Cooperating educational facilities | Participating hospitals—London, Windsor, Sarnia, Y. Thomas, Stratford, | Nicologici. | Agencies in the Algonquin College area have recommended that the College establish this program and have indicated a willingness to provide field | placement. | I | ı | Response indicated there were co-operating facilities but did | Field work place- ments are made in a great variety of | agencies. | Various social service |
| Length of program | 3, 8-week courses in 2 year period. | 1 year | 2 years | 2 years | 2 years | 2 years | 2 years | 2 years | 2 years | 2 years |
| Name of college and location | Fanshawe, London 3 | Humber College, Rexdale | Algonquin, Ottawa | Humber College, | Sir Sanford Fleming, Peterborough | Niagara College, Welland | Mohawk, Hamilton | Cambridge College, Sudbury | Northern College, Timmins | Conestoga, |
| Course | | Residential counsellor—mental retardation | Social service worker | | | | | | | |

TABLE 6.54 (Continued)

Number of Health Personnel Enrolled and Graduated from the Ontario Colleges of Applied Arts and Technology, Length of Program, and Cooperating Educational Faculties, by Course and College, 1968-1969 and Projected for 1969-1970

| Projected no. enrolled July 1/69 to June 30/70 | 2nd yr. 17 37 | 1 yr. 20 2nd yr. 10 | 19 | I | 1 | I | 85 | 174 | 124 |
|---|---|---------------------------------------|--------------------------------|---|--|-----------------|--|--------------------------|-------------------------------------|
| No. enrolled July 1/68 to June 30/69 | 2nd yr. 24 41 | 10 | 10 | 1 | 1 | 1 | 79 | 06 | 70 |
| Projected no. of graduates July 1/69 to June 30/70 | | 10 | 14 | I | I | u. | 40 | 09 | 09 |
| No. graduated July 1/68 to June 30/69 | | (1st class will graduate in May 1970) | 6 | 4 | I | 1 | 26 | 30 | 20 |
| Cooperating educational facilities | agencies in the counties of Huron, Perth, Waterloo and Wellington | | I | various agencies for field placement | I | | l | Area hospitals | All public health units |
| Length of program | | 2 years | 2 years | 2 years | 2 years | 2 years | 2 years | 2 years (6 semesters) | 5 semesters (3 semesters) per year) |
| Name of college and location | Kitchener | Sheridan, Brampton | Confederation, Fort William | Fanshawe, London | St. Lawrence, Kingston ³ | Seneca, Toronto | Centennial, Toronto, Scarborough | Ryerson Polytechnical | |
| Course | | | | | | | | Nursing | Public health inspector |

A biomedical engineering technician is employed by a hospital to operate, test and repair modern medical electronic equipment, Successfully completed the five-month period at Confederation College and will graduate through the hospital in the future.

Social service technician.

SOURCE: Communication with Ryerson Polytechnical Institute, Toronto. Questionnaires of the Committee on the Healing Arts for the College of Applied Art and Technology, 1969,







